## ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant

- Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
- Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
- Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
- Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
- Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728–4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
- 6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation

- Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nandiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (I) the requirements of any other nondiscrimination statute(s) which may apply to the application.
- 7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-846) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
- Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

Previous Edition Usable

Standard Form 4248 (Rev. 7-97)
Prescribed by OMS Circular A-102

- Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §\$276a to 276a-7), the Copeland Act (40 U.S.C. §275c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §\$327-323), regarding labor standards for federally-assisted construction subagreements.
- 10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
- 14. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wellands oursuant to EQ 11990; (d) evaluation of flood hazards in Roodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (1) comormity of Federal actions to State (Clean Air) Implementation Plans junder Section 176(c) of the Clean Air Act of 1955, as amended (#2 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Sale Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-

- 12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et set.) related to protecting compenents or potential components of the national wild and scenic rivers system.
- 13. Will assist the awarding agency in assuring compilance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 tits.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 tits.C. §5469a-1 et seq.).
- 44. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
- 15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, treaching, or other activities supported by this award of assistance.
- 16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- 17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1396 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
- 18. Will comply with all applicable requirements of all other Federal laws; executive orders, regulations, and policies governing this program;

i .	-
SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
Mr.	Deputy Commissioner
APPLICANT ORGANIZATION	DATE SUBMITTED
State of Connecticut Department of Public Health	2.34.50.85
	Standard Form 424B (Rev. 7-97) E



# United States ENVIRONMENTAL PROTECTION AGENCY Washington, DC 20466

OMB Control No. 2030-0020 Approval expires 04/30/2021

**EPA Project Control Number** 

# CERTIFICATION REGARDING LOBBYING

# CERTIFICATION FOR CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge and belief, that

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who falls to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Heather Aaron, Deputy Commissioner, Department of Public Health

Typed Name & Title of Authorized Representative

Signature and Date of Authorized Representative

The public reporting and recordkeeping burden for this collection of information is estimated to average 15 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, Et.S. Environmental Protection Agency (2822T), 1200/Pennsylvania Ave., NW, Washington, Dr.C. 29460, include the OMB control number in any correspondence. Do not send the completed form to this address,

EPA Form 6600-06 (Rev. 06/2014) Previous editions are obsolete.

OMB Number: 2030-0020 Expiration Date: 06/30/2024

# Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A.	Applican	/Recipient (Name, A	ddress, City, Sta	te, Zip Code)					
	Name:	State of Connec	ticut, Depart	ment Of Pub	lic Health				
	Address:	410 Capitol Ave	nue						
	City:	Hartford							
	State:	CT: Connecticut	-			Zip (	Code: 06134		
_		007050701							
	DUNS No	<b></b>		<b>5</b> -2					
11.	_	plicant currently red	_		Yes No				
III.		vil rights lawsuits a or, national origin, s							
EEOC	nistrat	ve employment c A-2015-00840; (2	omplaints: (1)	Commission	on Human Righ	ts and Oppo	rtunities (CHR	0)case no. 15	510393/
IV.	discrimi	ivil rights lawsuits a nation based on rac e actions taken. (D	e, color, national	origin, sex, ag	je, or disability an	d enclose a co	ppy of all decision		
None					<del></del>	-	·		
V.	of the re-	ivil rights compliand view and any decisions § 7.80(c)(3))							lose a copy
Wome	n, Infar	s compliance rev nts, and Childre DR). See attach	n (WIC) by the	U.S. Dept.	of Agricultur	e, Food and	Nutrition Ser	vice, Civil H	Rights
VI.	Is the ap	olicant requesting E	PA assistance for	r <b>new constru</b> ⊠ No	ction? If no, proc	eed to VII; if y	es, answer (a) and	d/or (b) below.	
		nt is for new constr e to and usable by						constructed to b	e readily
			Yes	No No					
b.		nt is for new constr ns with disabilities,					will not be readily	accessible to a	and usable
No	t appli	cable							
VII.		applicant/recipient olor, national origir	•	_				X Yes	☐ No
a.	Do the m	ethods of notice ac	commodate those	with impaire	d vision or hearin	g?		X Yes	No
		tice posted in a pro ities, in appropriate	•			s or, for educa	ition programs	X Yes	No
c.	Does the	notice identify a de	signated civil rigl	nts coordinate	or?			X Yes	☐ No
VIII.		applicant/recipient of the population i			the race, color, n	ational origin,	sex, age, or	X Yes	☐ No
IX.		applicant/recipient nglish proficiency?			oviding access to	services for p	ersons with	Yes	No

X.		r activity, or has 15 or more employees, has it des Provide the name, title, position, mailing address,	
		nent Opportunity Manager, CT Dept. of Pul berson@ct.gov; fax: 860-509-7111; phone	· · · · · · · · · · · · · · · · · · ·
XI.		r activity, or has 15 or more employees, has it ado hat allege a violation of 40 C.F.R. Parts 5 and 7? F	
Yes	s - see attached: DPH Discrimination	Complaint Process	
	certify that the statements I have made on this fo	For the Applicant/Recipient  orm and all attachments thereto are true, accurate and	complete I acknowledge that any
kı		ounishable by fine or imprisonment or both under appl	
A	. Signature of Authorized Official	B. Title of Authorized Official	C. Date
F	Rachel J Nowek	Deputy Commissioner	03/25/2022
p	have reviewed the information provided by the a ompliance information required by 40 C.F.R. Par	For the U.S. Environmental Protection Agency  pplicant/recipient and hereby certify that the applicant rts 5 and 7; that based on the information submitted, the e applicant has given assurance that it will fully comply	nis application satisfies the preaward

B. Title of Authorized Official

A. \*Signature of Authorized EPA Official

C. Date

#### \* See Instructions

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. \* Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.



# **EPA KEY CONTACTS FORM**

OMB Number: 2030-0020 Expiration Date: 06/30/2024

**Authorized Representative:** Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.

Name:	Prefix	Ms.		First Name:	Heather			· ·	liddle Name:		
	Last N	lame:	Aaron						Suffix:	MPH, LNHA	
Title:	Deput	ty Con	missioner								
Complet	te Ado	dress:									
Street	1: [4	110 Ca	pitol Avenu	ıe, MS#12-CO	М						
Street	<b>2</b> : [	20 Box	340308								
City:	F	Hartfo	rd			State:	CT: Connecti	icut			
Zip / P	ostal	Code:	06134-0308			Country:	USA: UNITE	D STATES			
Phone N	lumbe	er:	860-509-710	)1			Fax Numbe	e <b>r:</b> 86	0-509-7111		
E-mail A	ddres	ss:	heather.aa	con@ct.gov							
			thorized to a	ccept paymen							
Name:				First Name:	Chukwama			N	liddle Name:		
	Last N	Vame:	Amechi						Suffix:		
Title:	Fisc	al Se	ction Chief	TSHC							
Complet	te Ado	dress:									
Street <sup>2</sup>	1: [5	State	of Connect:	icut, Depart	ment of Pul	blic Heal	Lth				
Street	2: [4	110 Ca	pitol Avenu	ae, MS #13-A	CT, PO Box	340308					
City:	F	Hartfo	rd			State:	CT: Connecti	cut			
Zip / P	ostal (	Code:	06134-0308			Country:	USA: UNITED	STATES			
Phone N	lumbe	<u>er:</u>	860-509-723	33			Fax Number	Fax Number: 860-509-7227			
E-mail A	ddres	ss:	chukwuma.ar	mechi@ct.gov							
	Administrative Contact: Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).										
Name:	Prefix	Mr.		First Name:	Victor			N	liddle Name:		
	Last N	lame:	Daye						Suffix:		
Title:	Supe	rvisi	ng Accounta	nt							
Complet	te Ado	dress:									
Street'	1: [	State	of Connect:	icut, Depart	ment of Pul	blic Heal	lth				
Street	2: [4	110 Ca	pitol Avenu	ıe, MS #13-A	CT, PO Box	340308					
City:	F	Hartfo	rd			State:	CT: Connecti	cut			
Zip / P	ostal (	Code:	06134-0308			Country:	USA: UNITE	STATES			
Phone N	lumbe	er:	860-509-781	12			Fax Number	<b>r:</b> 86	0-509-7227		
E-mail A	ddres	<u>ss:</u>	Victor.Daye	e@ct.gov							

EPA Form 5700-54 (Rev 4-02)

# **EPA KEY CONTACTS FORM**

Project Manager: Individual responsible for the technical completion of the proposed work.

						¬		
<u>Name:</u>	Prefix: Ms.	First N	ame: Lori			Middle Name:		
	Last Name:	Mathieu				Suffix:		
Title:	Public He	Health Branch Chief						
Comple	te Address	-						
Stree	t1: State	of Connecticut, De	epartment of Pu	blic Healt	:h			
Stree	<b>t2:</b> 410 C	apitol Avenue, MS#	2DWS, P.O. Box	340308				
City:	Hartf	ord		State:	T: Connecticut			
Zip / l	Postal Code:	06134-0308		Country:	USA: UNITED STA	res		
Phone I	Number:	860-509-7333			Fax Number:			
E-mail /	Address:	lori.mathieu@ct.g						

EPA Form 5700-54 (Rev 4-02)

\* Mandatory Other Attachment Filename: 1235-Section 5 Quality Assurance Statement.pdf

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment

\* Mandatory Project Narrative File Filename: 1234-CT DPH Air Monitoring Grant project narrative 3.2

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

OMB Approval No. 0920-0428

#### CERTIFICATIONS

# 1. CERTIFICATION REGARDING DEBARMENT AND SUSPENSION

The undersigned (authorized official signing for the applicant organization) certifies to the best of his or her knowledge and belief, that the applicant, defined as the primary participant in accordance with 45 CFR Part 76, and its principals:

- (a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal Department or agency;
- (b) have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) are not presently indicted or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

Should the applicant not be able to provide this certification, an explanation as to why should be placed after the assurances page in the application package.

The applicant agrees by submitting this proposal that it will include, without modification, the clause titled "Certification Regarding Debarment, Suspension, In eligibility, and Voluntary Exclusion—Lower Tier Covered Transactions" in all lower tier covered transactions (i.e., transactions with subgrantees and/or contractors) and in all solicitations for lower tier covered transactions in accordance with 45 CFR Part 76.

#### 2 CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

The undersigned (authorized official signing for the applicant organization) certifies that the applicant will, or will continue to, provide a drug-free work-place in accordance with 45 CFR Part 76 by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about—
  - The dangers of drug abuse in the workplace;
  - The grantee's policy of maintaining a drug-free workplace;
  - Any available drug counseling, rehabilitation, and employee assistance programs; and
  - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a) above;
- (d) Notifying the employee in the statement required by paragraph (a), above, that, as a condition of employment under the grant, the employee will—
  - (1) Abide by the terms of the statement; and
  - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing within ten calendar days after receiving notice under paragraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central

point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

- (f) Taking one of the following actions, within 30 calendar days of receiving notice under paragraph (d) (2), with respect to any employee who is so convicted—
  - Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
  - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

For purposes of paragraph (e) regarding agency notification of criminal drug convictions, the DHHS has designated the following central point for receipt of such notices:

Office of Grants and Acquisition Management
Office of Grants Management
Office of the Assistant Secretary for Management and
Budget
Department of Health and Human Services
200 Independence Avenne, S.W., Room 517-D

Washington, D.C. 20201

#### 3. CERTIFICATION REGARDING LOBBYING

Title 31, United States Code, Section 1352, entitled "Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions," generally prohibits recipients of Federal grants and cooperative agreements from using Federal (appropriated) funds for lobbying the Executive or Legislative Branches of the Federal Government in connection with a SPECIFIC grant or cooperative agreement. Section 1352 also requires that each person who requests or receives a Federal grant or cooperative agreement must disclose lobbying undertaken with non-Federal (non-appropriated) funds. These requirements apply to grants and cooperative agreements EXCEEDING \$100,000 in total costs (45 CFR Part 93).

The undersigned (authorized official signing for the applicant organization) certifies, to the best of his or her knowledge and belief, that:

(i) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperatives agreement.

- (2) If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Lobbying Activities," in accordance with its instructions. (If needed, Standard Form-LLL, "Disclosure of Lobbying Activities," instructions, and continuation sheet are included at the end of this application form.)
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

# 4. CERTIFICATION REGARDING PROGRAM FRAUD CIVIL REMEDIES ACT (PFCRA)

The undersigned (authorized official signing for the applicant organization) certifies that the statements herein are true, complete, and accurate to the best of his or her knowledge, and that he or she is aware that any false, fictitious, or fraudulent statements or claims may subject him or her to criminal, civil, or administrative penalties. The undersigned agrees that the applicant organization will comply with the Public Health Service terms and conditions of award if a grant is awarded as a result of this application.

#### 5. CERTIFICATION REGARDING ENVIRONMENTAL TOBACCO SMOKE

Public Law 103-227, also known as the Pro-Children Act of 1994 (Act), requires that smoking not be permitted in any portion of any indoor facility owned or leased or contracted for by an entity and used routinely or regularly for the provision of health, day care, early childhood development services, education or library services to children under the age of 18, if the services are funded by Federal programs either directly or through State or local governments, by Federal grant, contract, loan, or loan guarantee. The law also applies to children's services that are provided in indoor facilities that are constructed, operated, or maintained with such Federal funds. The law does not apply to children's services provided in private residence, portions of facilities used for inpatient drug or alcohol treatment, service providers whose sole source of applicable Federal funds is Medicare or Medicaid, or facilities where WIC coupons are redeemed.

Pailure to comply with the provisions of the law may result in the imposition of a civil monetary penalty of up to \$1,000 for each violation and/or the imposition of an administrative compliance order on the responsible entity.

By signing the certification, the undersigned certifies that the applicant organization will comply with the requirements of the Act and will not allow smoking within any portion of any indoor facility used for the provision of services for children as defined by the Act.

The applicant organization agrees that it will require that the language of this certification be included in any subawards which contain provisious for children's services and that all subrecipients shall certify accordingly.

The Public Health Services strongly encourages all grant recipients to provide a smoke-free workplace and promote the non-use of tobacco products. This is consistent with the PHS mission to protect and advance the physical an mental health of the American people.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE	
Mer	Deputy Commissioner	
APPLICANT ORGANIZATION	:	DATE SUBMITTED
State of Connecticut Department of Public Health		2.28.2022

OMB Number: 4040-0004 Expiration Date: 12/31/2022

Application for F	ederal Assista	nce SF	-424							
Preapplication New		* If Revision, select appropriate letter(s):  * Other (Specify):								
* 3. Date Received:			icant Identifier:						 	
03/25/2022		Т. Дррії	oditi identiner.							
5a. Federal Entity Identifier:  5b. Federal Award Identifier:										
State Use Only:				<u> </u>						
6. Date Received by S	State:		7. State Application	Iden	ntifier:					
8. APPLICANT INFO	PRMATION:		<u> </u>		L				 	
* a. Legal Name: St	ate of Connec	eticut.	Department of	Pub	olic H	[ealth				
* b. Employer/Taxpay						nizational DUNS:			***************************************	
06-6000798			,	1-		7910000				
d. Address:							***************************************			
* Street1:	410 Capitol A	venue							 	
Street2:	MS#12DWS, P.O	. Box	340308							
* City:	Hartford									
County/Parish:									 	
* State:	CT: Connectic	ut							 	
Province:  * Country:	IICA - IBITEEN C	ma mp.c							 	
	USA: UNITED S	TATES							 	
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e. Organizational U				Т,						
Department Name:	Public Hoolth			,   _	Division	Name: 	ınah			
						***************************************		***************************************		
f. Name and contac	t information of p	erson to			rs invo	Iving this applicat	tion:			
Prefix:			* First Nam	e:	Rach	nel			 	
Middle Name:  * Last Name: Now									 	
* Last Name: Nowek Suffix:										
Title: Public Health Services Manager										
L		lanage							 	
Organizational Affiliation:										
* Telephone Number:	* Telephone Number: 860-509-7313 Fax Number:									
*Email: rachel.n					***************************************					]
1										1

Application for Federal Assistance SF-424
* 9. Type of Applicant 1: Select Applicant Type:
A: State Government
Type of Applicant 2: Select Applicant Type:
Type of Applicant 3: Select Applicant Type:
* Other (specify):
* 10. Name of Federal Agency:
Environmental Protection Agency
11. Catalog of Federal Domestic Assistance Number:
66.034
CFDA Title:
Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act
* 12. Funding Opportunity Number:
EPA-OAR-OAQPS-22-01
* Title:
Enhanced Air Quality Monitoring for Communities
13. Competition Identification Number:
Title:
14. Areas Affected by Project (Cities, Counties, States, etc.):
Add Attachment Delete Attachment //ew Attachment
* 15. Descriptive Title of Applicant's Project:
DPH and project partners will develop a pilot project intended to raise community awareness of air
pollutants using a community-based educational toolbox.
Attach supporting documents as specified in agency instructions.
Add Attachments Delate Attachments View Attachments

Application	Application for Federal Assistance SF-424				
16. Congression	onal Districts Of:				
* a. Applicant	CT-001	* b. Program/Project CT-all			
Attach an addition	onal list of Program/Project C	ongressional Districts if needed.			
		Add Attachment Delete Attachment View Attachment			
17. Proposed F	Project:				
* a. Start Date:	11/01/2022	* b. End Date: 10/31/2025			
18. Estimated	Funding (\$):				
* a. Federal		500,000.00			
* b. Applicant		0.00			
* c. State		0.00			
* d. Local		0.00			
* e. Other		0.00			
* f. Program Inc	ome	0.00			
* g. TOTAL		500,000.00			
* 19. Is Applica	ation Subject to Review By	v State Under Executive Order 12372 Process?			
a. This app	olication was made availab	e to the State under the Executive Order 12372 Process for review on			
b. Program	n is subject to E.O. 12372 t	out has not been selected by the State for review.			
C. Program	is not covered by E.O. 12	372.			
* 20. Is the App	olicant Delinquent On Any	Federal Debt? (If "Yes," provide explanation in attachment.)			
Yes	<b>⊠</b> No				
If "Yes", provid	le explanation and attach				
		Add Attachment Delete Attachment View Attachment			
21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)  ** I AGREE  ** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.					
Authorized Re	Authorized Representative:				
Prefix:		* First Name: Heather			
Middle Name:					
* Last Name:	Aaron				
Suffix:	MPH, LNHA				
* Title: De	puty Commissioner				
* Telephone Nu	mber: 860-509-7101	Fax Number:			
*Email: heath	ner.aaron@ct.gov				
* Signature of A	uthorized Representative:	Rachel J Nowek * Date Signed: 03/25/2022			

#### **Curriculum Vitae**

# Mariana Barreto Alfonso Fragomeni, B.S., M.E.P.D., Ph.D.

# Ex. 6 Personal Privacy (PP)

## **EDUCATION**

2014 - 2019

Ph.D. Geography and Integrative Conservation,

University of Georgia, U.S.A.

<u>Dissertation Title:</u> When Cities Plan for Heat Health Impacts: A Collaborative Framework to Integrate Planning and Climate.

<u>Areas of study:</u> Urban climatology (major), Human bioclimatology (minor), Political ecology (cognate)

Advisors: J. Marshall Shepherd and Rosanna Rivero

2012 - 2014

M.E.P.D. Master in Environmental Planning and Design,

University of Georgia, U.S.A.

<u>Thesis Title:</u> Planning with Climate: Urban Design as a Tool for Adaptation.

Advisor: Rosanna Rivero

2010 - 2011

Specialization in Architectural and Urban Sustainable

**Environmental Rehabilitation**,

Universidade de Brasilia, Brazil.

2002 - 2007

B.S. Bachelor in Architecture and Urbanism, Universidade Federal da Bahia, Brazil.

### **WORK EXPERIENCE**

2020 - Present	Assistant Professor
	Plant Science and Landscape Architecture
	University of Connecticut, Storrs/CT, USA.
2019 – 2020	Adjunct Faculty
	Plant Science and Landscape Architecture University of Connecticut, Storrs/CT, USA.
2018 - 2019	Postdoctoral Scholar and Intern Community Research & Design Collaborative University of Connecticut, Storrs/CT, USA.
2014 – 2018	Graduate Research Assistant  Integrative Conservation Program  University of Georgia, Athens/GA, USA.
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2014 – 2015	Graduate Research Assistant
	St Marys, GA/ Hyde County, NC – Coastal Hazard Adaptation Plan Carl Vinson Institute of Government and Georgia Sea Grant
	University of Georgia, Athens/GA, USA.
2013 (Feb – Dec)	Graduate Research Assistant
2013 (Feb – Dec)	
2013 (Feb - Dec)	Athens Downtown Master Plan

University of Georgia, Athens/GA, USA.

2010 - 2012 Project Coordinator and Energy Efficiency Analyst

Companhia de Eletricidade do Estado da Bahia (Bahia State Electric Utility Company) Salvador, Bahia, Brazil

2009 - 2010 Project Coordinator and Energy Efficiency Analyst

Fundação de Apoio à Pesquisa e à Extensão (Foundation for Research and Extension Support)
Salvador, Bahia, Brazil

2008 - 2009 Energy Efficiency Analyst

Cooperação para Desenvolvimento e Morada Humana (Cooperation for Human Development and Habitat) Salvador, Bahia, Brazil

2005 - 2008 Junior Architect/ Intern

Spatium Arquitetura e Paisagismo (Spatium Architecture and Landscape Architecture)
Salvador, Bahia, Brazil

# REFEREED PUBLICATIONS (2005 - 2019)

#### Cited as

Fragomeni, M.B.A./ Fragomeni, M.A./ Fragomeni, Mariana A./ Alfonso, M.B./ Alfonso, Mariana B./ Alfonso, Mariana Barreto

#### In press

- Haupt, S. E., Hanna, S., Askelson, M., Shepherd, M., Fragomeni, M. A., Debbage, N., Johnson, B. (2019). 100 years of progress in applied meteorology. Part II: Applications that address growing populations. Meteorological Monographs, 59, 23-1.
- **Fragomeni, M.B.A.**, Bernardes, S., Shepherd, J.M., Rivero, R.G. (2020). A Collaborative Approach to Heat Response Planning: A Case Study to Understand the Integration of Urban Climatology and Land-use Planning. Urban Climate, 33, 1000653.
- **Fragomeni, M.B.A.**, Rice, J.L., Rivero, R.G., Shepherd, J.M., (2020). First Policy, Then Action: A Co-Production Approach to Understand the Application of Urban Climate Knowledge in Land Use Planning. Journal of Extreme Events, 6.

#### Manuscripts in preparation

**Fragomeni, M.B.A.,** Shepherd, J.M., Rivero, R., A 20-Year Analysis of Land Cover and Land Surface Temperature Changes in Chatham County, Georgia, United States, for Remote Sensing of Environment.

# **Chapters in Books**

Fragomeni, M.B.A. pg. 2

- Rivero, R G., Smith, A.L., and **Fragomeni, M.B.A.** (2021). Resilience in coastal regions: the case of Georgia, USA. In Steinberg, S.L. and S. Steinberg GIS Applications for Resilience: Across Spatial Geographies. Environmental Systems Research Institute, Inc. (Esri), v.1, p. 17-54.
- Alfonso, M.B., Amorim, C. N. D. "The applicability of the Technical Quality Requisite of Energy Efficiency Levels in existing commercial buildings: the prospection problem." A aplicabilidade do Requisito Técnico da Qualidade do Nível de Eficiência Energética em edificações comerciais existentes: a problemática da prospecção. Olhares da reabilitação ambiental sustentável. 1ed.Brasilia: FAU-UnB, 2012, v. 1, p. 132-156

# Other Publications

Gambill, J., Russell, M., Spratt, K., Whitehead, J., **Alfonso, M.**, Hopkinson, C.S., Evans, J.M., 2017. St. Marys Flood Resiliency Project. Final Report. March, 2017.

#### **AWARDS AND HONORS**

- **2016** "Four for the Future" Award by Georgia Trend magazine for the St. Marys Flood Resiliency Project.
- **2017** Award of Excellence at the University Economic Development Association Annual Summit in Long Beach, California for the St. Marys Flood Resiliency Project.
- 2017 4th Symposium on Integrative Conservation Logo Design Award
- **2018** Best Oral Presentation Award by American Meteorological Society and International Conference on Urban Climate

#### **FUNDING**

- **2017** When Cities Plan for Heat Health Impacts: A Collaborative Framework to Integrate Planning and Climate. March 2017, University of Georgia Innovative and Interdisciplinary Research Grant for Doctoral Students. **Pl**.
- 2018 Post-Hurricane Heat Emergency Response Planning. March 2018, University of Georgia Summer Research Travel Grant. PI.
- 2018 University of Georgia Travel Grant
- **2020** Identifying the Change in Heat Vulnerability and Land-use Influence for Resilient Connecticut Project. June 2020 June 2021. Connecticut Institute for Resiliency and Climate Adaptation. **PI.**

#### **CONFERENCE ACTIVITY**

#### Papers and Abstracts Presented

2005 Oliveira, Mário Mendonça de, Alfonso, Mariana Barreto. "An equipment proposal for pull-off analysis." Uma proposta de equipamento para ensaios de arrancamento (pull-off).
 In: VI Simpósio Brasileiro de Tecnologia de Argamassas - VI SBTA, 2005, Florianópolis.
 VI Simpósio Brasileiro de Tecnologia de Argamassas - VI SBTA, 2005. Proceeding Paper.

- 2006 Nery, Jussana M. F. Guimarães, Freire, Márcia Rebouças, Alfonso, Mariana Barreto, Santos Junior, Luiz Rogério Rosário Dos, Costa, Isadora Novaes Schefler Barbosa, Corrêa, Carlos José Ribeiro Bahia. "Thermal Comfort In Classrooms in UFBA." Conforto Térmico Em Salas De Aula Da UFBA. 2006. Poster Presentation.
- **2013** Crowley, J., **Alfonso**, **M.**, Downtown Athens Master Plan 2030. In: Georgia Chapter of the American Planning Association Fall 2013 Conference, 2013. Jekyll Island/GA. October 9, 2013. Oral Presentation.
- **2014 Alfonso, M.,** Rivero, R., Climate Planning in Coastal Georgia. In: American Planning Association 2014 National Planning Conference, 2014, Atlanta/GA. Poster Presentation.
- **2014** Gambill, J., **Alfonso**, **M.**, Planning for Sea Level Rise and Flood Resiliency in Coastal Georgia. In: Southeastern Division of the Association of American Geographers Annual Meeting, 2014, Athens/GA. November, 2014. Oral Presentation.
- **2014 Alfonso**, **M.**, Gambill, J., Evans, J., Learning How to Become Resilient: St. Marys Flood Resiliency Plan. In: Southeastern Division of the Association of American Geographers Annual Meeting, 2014, Athens/GA. November, 2014. Poster Presentation.
- **2015** Gambill, J., Evans, J., **Alfonso, M.**, A Radical Trans-Disciplinary Approach to Sea Level Rise Planning in the Southeast. In: Association of American Geographers Annual Meeting, 2015, Chicago/IL. April 21, 2015. Oral Presentation.
- **2015 Alfonso**, **M.**, Gambill, J., Evans, J., Visualizing Climate Change: Strategic Communications, Graphic Design and GIS as a Tool in Climate Adaptation Planning. In: Association of American Geographers Annual Meeting, 2015, Chicago/IL. April 24, 2015. Poster Presentation.
- 2017 Fragomeni, M.A., Urban Climate Planning: A Collaborative Methodological Approach to Integrate Land-Use Planning Practices and Human Bioclimatology in Savannah GA. In: Symposium on Integrative Conservation, 2017, Athens/GA. January 27, 2017. Oral Presentation.
- **2018 Fragomeni, M.A.,** When Cities Respond to Heat. In: Symposium on Integrative Conservation, 2018, Athens/GA. January 26, 2018. Oral Presentation.
- **2018 Fragomeni, M.A.,** Shepherd, J.M., Rivero, R., Using Collaborative GIS to Address Heat Vulnerability: A Case Study in Savannah-GA. In: Association of American Geographers Annual Meeting, April 2018, New Orleans/LA. Oral Presentation.
- **2018 Fragomeni, M.A.,** Shepherd, J.M., Rivero, R., Integrating Planning and Climate: A Collaborative Framework to Address Heat Vulnerability. In: 10th International Conference on Urban Climate/14th Symposium on the Urban Environment, August 2018, New York/NY. Oral Presentation.
- **2020 Fragomeni**, M.A., Long-term Spatial Temporal Analysis of Land Cover and Land Surface Temperature Changes In Chatham County GA. In: 15th Symposium on the Urban Environment/ American Meteorological Society's 100th Annual Meeting, January 2020, Boston/MA. Poster Presentation.

**2021 Fragomeni, M.A.**, Miller, T., Day, K., Landscapes and their Relationship to Surface Urban Heat Islands. In: 100+1 Resilience Conference/ Council of Educators in Landscape Architecture 2021 Annual Conference, March 2021. Oral Presentation

### **Invited Lectures and Presentations**

- **2020 Fragomeni, M.** Heat, Public Health, and Climate Change. Presentation for the Climate Change & Public Health Mini-Webinar Series, September 2020. Virtual.
- **2020 Fragomeni**, M., McClenning, L., Oliver, R. G. Scoping and Design of Actionable Science: A case study of integrating urban climatology and land-use planning. Presentation for the NOAA Restore Science Program Webinar Series: How to Co-Produce. November 2020. Virtual.

# **Organized Panels and Workshops**

**2018** Shannon, J., Scott, D., Evans, M., **Fragomeni, M.A.,** Community Mapping and GIS. In: 1<sup>st</sup> Integrative Conservation Conference, September 2018, Athens/GA.

## Non-Academic Presentations

- **2010** Mascarenhas, A. C. R., **Alfonso, Mariana Barreto**. Energy Efficiency in Brazil: Presenting the Neoenergia Group. USEA/USAID Global Energy Efficiency Workshop. Washington, D.C. March 8, 2010.
- **2012** Mascarenhas, A. C. R., **Alfonso**, **Mariana Barreto**. Electrification Sustainability: Going Beyond the Meter. ESMAP/Cities Alliance Practitioners Workshop Energy Access for the Urban and Periurban Poor. Washington, D.C. May 7, 2012.

#### SERVICE TO PROFESSION AND OTHER ACTIVITIES

- **2018** International Conference on Urban Climate (ICUC-10) and National Science Foundation (NSF) Working Group Knowledge Transference in Urban Climatology, member.
- 2019 present Ad Hoc reviews for Urban Climate Journal
- 2020 present Ad Hoc reviewer for Sustainability
- **2020** Connecticut Governor's Council on Climate Change (GC3) Public Health and Safety Working Group, Extreme Heat sub-group member.
- **2021** National Oceanic and Atmospheric Agency (NOAA), Grant Agency Peer Reviewer for the NOAA Restore Science Program, March 30 April 1, 2021.

### 

Dr. Kristina M. Wagstrom

# Ex. 6 Personal Privacy (PP)

#### Work Experience

Associate Professor, Department of Chemical and Biomolecular Engineering, University of Connecticut, Storrs, CT, August 2020 – current.

Additional Affiliations: Environmental Engineering

Center for Clean Energy Engineering

Center for Environment Science and Engineering

My lab, the Computational Atmospheric Chemistry and Exposure Laboratory, specializes in applying computational engineering-based approaches to address problems related to air pollution and atmospheric chemistry. This includes creating new and expanded modeling approaches, using community-developed computational tools to directly answer pressing scientific questions, using low-cost monitoring tools to expand the observational data available for model evaluation and development, and addressing local air pollution concerns posed by community partners. The overarching goal of the laboratory is to bridge the gap between the basic scientific understanding of the transport and transformation of atmospheric pollutants and the tools policy makers and communities use to develop potential air pollution strategies.

Assistant Professor, Department of Chemical and Biomolecular Engineering, University of Connecticut, Storrs, CT, August 2012 – current. (on leave for a fellowship from September 1, 2012 – August 31, 2013)

*Fellow*, Science and Technology Policy Fellowship, *American Association for the Advancement of Science (AAAS)*, Washington, DC, September 2012 – August 2013.

<u>Host Office</u>: U.S. Environmental Protection Agency; Office of Research and Development

National Center for Environmental Research; Applied Sciences Division

Mentor: Sherri Hunt

*Postdoctoral Associate*, Department of Civil Engineering, *University of Minnesota*, Minneapolis, MN, August 2009 – May 2012

Focus Area: Atmospheric chemistry and biofuels.

Advisor: Dr. Julian Marshall

#### EDUCATION

**Doctor of Philosophy in Chemical Engineering**, Department of Chemical Engineering, Carnegie Mellon University, Pittsburgh, PA, 2009

Focus Area: Atmospheric chemistry / Air pollution

Dissertation Title: Characterizing the Origin of Atmospheric Particulate Matter

Dissertation Advisor: Dr. Spyros N. Pandis

Bachelor of Science in Chemical Engineering, Chemical and Environmental Engineering Department, Illinois Institute of Technology, Chicago, IL, 2004

Bachelor of Science in Chemistry, Biological, Chemical and Physical Sciences Department, Illinois Institute of Technology, Chicago, IL, 2004

Curriculum Vitae | Kristina Wagstrom | Updated 09/03/2019 | Page 1

## FUNDING

- **Co-PI,** Building a Sustainable Food Program between Rural and Urban Communities as a Laboratory for Training Future Food System Professionals, US Department of Agriculture, 04/15/2021 04/14/2026. PI: Andrew Jolly-Ballantine.
- Faculty, Service Learning at the Intersection of Environmental Stewardship at the University of Connecticut, Campuses for Environmental Stewardship Campus Compact, 06/01/2018-05/31/2021.
- **Principal Investigator**, Source Contributions to Ozone in Connecticut, Connecticut Department of Energy and Environmental Protection Contract. 05/23/2019-10/01/2020.
- Principal Investigator, CAREER: Engaging Communities to Bridge the Local to Regional Gap in Air Pollution Exposure Assessment, National Science Foundation Environmental Engineering Program. 05/23/2018-05/22/2023.
- **Principal Investigator,** Resolving Source Contributions to Atmospheric Deposition, National Science Foundation Environmental Engineering Program. 09/01/2017-08/31/2021.
- Co-Director, Student Engagement in a Living Laboratory for Sustainable Agriculture, University of Connecticut Academic Plan Program. 07/01/2017-06/20/2020. PD: Richard Parnas.
- *Principal Investigator*, University of Connecticut CESE Mini-Grants in Support of Environmental Research Programs. 05/01/2017-06/30/2018.
- **Principal Investigator**, Transport and Transformation of Air Pollutants Service-Learning Activities, University of Connecticut Provost's Teaching Innovation Mini Grant Competition. 01/01/2016-06/30/2016.
- Eversource Assistant Professor for Environmental Engineering Education, University of Connecticut Endowed Faculty Appointment. 08/23/2013-08/22/2020.

### PEER-REVIEWED PUBLICATIONS

- Parvez, Fatema, Wagstrom, Kristina. Impact of Regional versus Local Resolution Air Quality Modeling on Particulate Matter Exposure Health Impact Assessment. (2020) *Air Quality, Atmosphere, and Health.* 13, 271-279. https://doi.org/10.1007/s11869-019-00786-6.
- Lamancusa, Carmen, Wagstrom, Kristina. Global Transport of Dust Emitted from Different Regions of the Sahara. (2019) *Atmospheric Environment*. In Press. https://doi.org/10.1016/j.atmosenv.2019.05.042
- Parvez, Fatema, Wagstrom, Kristina. A Hybrid Modeling Framework to Estimate Pollutant Concentrations and Exposures in Near Road Environments. (2019) *Science of the Total Environment*. 663, 144-153. https://doi.org/10.1016/j.scitotenv.2019.01.218.
- Parvez, Fatema, Wagstrom, Kristina. Comparing Estimates from the R-LINE Near Road Dispersion Model Using Model-derived and Observation-derived Meteorology. (2018) *Atmospheric Pollution Research.* 9 (3), 483-493. https://doi.org/10.1016/j.apr.2017.10.007
- Parvez, Fatema, Lamancusa, Carmen, Wagstrom, Kristina. Primary and Secondary Particulate Matter Intake Fraction from Different Height Emission Sources. (2017) *Atmospheric Environment*. 165, 1-11. https://doi.org/10.1016/j.atmosenv.2017.06.011
- Lamancusa, Carmen, Parvez, Fatema, Wagstrom, Kristina. Spatially Resolved Intake Fraction Estimates for Primary and Secondary Particulate Matter in the United States. (2017) *Atmospheric Environment*. 150, 229-237. https://doi.org/10.1016/j.atmosenv.2016.11.010
- Ciston, S., Luchini-Colbry, K., Weyant, C.M., Nagel, R.L., Nagel, J.K., Genau, A.L., Wagstrom, K.M., Briedis, D. Two Body Solutions: Strategies for the Dual-Career Job Search. (2015) *American Society for Engineering Education Annual Conference and Exposition*. Seattle, WA. June 14-17, 2015. https://www.asee.org/public/conferences/56/papers/11885/view

- Wagstrom, Kristina M., Baker, Kirk, Hunt, Sherri. Synthesizing Scientific Progress: Outcomes from US EPA's Carbonaceous Aerosols and Source Apportionment STAR Grants. (2014) *Environmental Science and Technology*. 48 (18), 10561-10570. https://doi.org/10.1021/es500782k
- Roy, Anirban A., Wagstrom, Kristina M., Adams, Peter A., Pandis, Spyros N., Robinson, Allen L. Quantification of the Effects of Molecular Marker Oxidation on Source Apportionment Estimates for Motor Vehicles. (2011) *Atmospheric Environment*. 45 (18), 3132-3140. https://doi.org/10.1016/j.atmosenv.2011.03.020
- Wagstrom, Kristina M., Pandis, Spyros N. Contributions of Long Range Transport to Local Fine Particulate Matter Problems. (2011) *Atmospheric Environment*. 45 (16), 2730-2735. https://doi.org/10.1016/j.atmosenv.2011.02.040
- Wagstrom, Kristina M., Pandis, Spyros N. Source-Receptor Relationships for Fine Particulate Matter in the Eastern United States. (2011) *Atmospheric Environment*. 45 (2). 347-356. https://doi.org/10.1016/j.atmosenv.2010.10.019
- Wagstrom, Kristina M., Pandis, Spyros N. Determination of the Age Distribution of Aerosol Species Using a Chemical Transport Model. (2009) *Journal of Geophysical Research Atmospheres*. 114. https://doi.org/10.1029/2009JD011784
- Wagstrom, Kristina M., Pandis, Spyros N., Yarwood, Greg, Wilson, Gary M., Morris, Ralph E. Development and Application of a Computationally Efficient Apportionment Algorithm in a Three Dimensional Chemical Transport Model. (2008) *Atmospheric Environment*. 42 (22). 5650-5659. https://doi.org/10.1016/j.atmosenv.2008.03.012

# SELECTED RECENT CONFERENCE PRESENTATIONS

- Crowl, Michael, Naranjo, Andrea, Chen, Xuanwen, Lamancusa, Carmen, Wagstrom, Kristina. Quantifying Inter-Regional Atmospheric Nitrogen Deposition to U.S. Hydrologic Regions. *National Atmospheric Deposition Program Annual Meeting*. November 5-9. 2018. Albany, NY.
- <u>Lamancusa</u>, <u>Carmen</u>, **Wagstrom**, **Kristina**. Global Source Apportionment of Atmospheric Particulate Matter. *American Institute of Chemical Engineers*. October 28 November 2, 2018. Pittsburgh, PA.
- <u>Parvez, Fatema, Wagstrom, Kristina.</u> Hybrid Modeling to Estimate Near-Road Pollutant Concentrations and Exposures. *Community Modeling and Analysis System Annual Conference*. October 22-24, 2018. Chapel Hill, NC.
- <u>Lamancusa</u>, <u>Carmen</u>, **Wagstrom**, **Kristina**. Global Particulate Matter Source Apportionment. *International Aerosol Conference*. September 2-7, 2018. St. Louis, MO.
- <u>Parvez, Fatema</u>, **Wagstrom, Kristina**. Estimation of Human Exposure to Near Road Emission Sources Using a Hybrid Modeling Framework. *International Aerosol Conference*. September 2-7, 2018. St. Louis, MO.
- <u>Parvez, Fatema</u>, **Wagstrom, Kristina**. Hybrid Modeling to Estimate Near-Road Pollutant Concentrations and Exposures. *International Society for Exposure Science*. August 26-30, 2018. Ottawa, Canada.
- <u>Parvez, Fatema</u>, **Wagstrom**, **Kristina**. Hybrid Modeling to Estimate Near-Road Pollutant Concentrations. *American Institute of Chemical Engineers*. October 29 November 3, 2017. Minneapolis, MN.
- <u>Parvez, Fatema</u>, **Wagstrom**, **Kristina**. Hybrid Modeling to Estimate Near-Road Pollutant Concentrations. *American Association for Aerosol Research*. October 16-20, 2017. Raleigh, NC.
- Chen, Xuanwen, Parvez, Fatema, **Wagstrom**, **Kristina**. Quanitfying Atmospheric Nitrogen Deposition to US Waterways. *American Institute of Chemical Engineers*. November 13-18, 2016. San Francisco, CA.

- **Wagstrom, Kristina**. Creating Socially Minded Engineers through Student-Led Air Pollution Assessments of Local Towns. *American Institute of Chemical Engineers*. November 13-18, 2016. San Francisco, CA.
- <u>Parvez, Fatema</u>, **Wagstrom**, **Kristina**. Impact of Meteorology Datasets on Near Roadway Dispersion Model Estimates. *American Association for Aerosol Research*. October 17-21, 2016. Portland, OR.
- <u>Lamancusa</u>, <u>Carmen</u>, **Wagstrom**, **Kristina**. Regionally Specific Saharan Dust Transport. *American Association for Aerosol Research*. October 17-21, 2016. Portland, OR.
- **Wagstrom, Kristina**. Identifying Reaction Regimes in Atmospheric Chemical Transport Models for Mechanism Reduction. *American Institute of Chemical Engineers*. November 8-13, 2015. Salt Lake City, UT.
- **Wagstrom, Kristina**. Flipping the Chemical Reaction Engineering Classroom. *American Institute of Chemical Engineers*. November 8-13, 2015. Salt Lake City, UT.
- <u>Lamancusa, Carmen, Parvez, Fatema,</u> **Wagstrom, Kristina**. Human Particulate Matter Exposure Implications from Regional Pollutant Transport. *American Association for Aerosol Research's 34<sup>th</sup> Annual Conference*. October 12-16, 2015. Minneapolis, MN.
- **Wagstrom, Kristina**. Identifying Organic Chemical Reaction Regimes in a Regional Model. *Atmospheric Chemical Mechanisms*. December 10-12, 2014. Davis, CA.
- Wagstrom, Kristina, Lamancusa, Carmen, Parvez, Fatema. Associating Intake Fraction and Distance from Source Regions with a Variety of Characteristics. *International Aerosol Conference*. August 28 September 2, 2014. Busan, Korea.

# JOANNA WOZNIAK-BROWN, PHD

Ex. 6 Personal Privacy (PP)

#### PROFESSIONAL EXPERIENCE

**UConn Connecticut Institute for Resilience and Climate Adaptation (CIRCA),** Assistant Director of Resilience Planning (May 2020 – present, full-time)

- Participate on GC3 topical Working Groups (including Public Health & Safety and Adaptation Planning & Implementation) in service of the state's Adaptation and Resilience Plan to be finalized by January 2021
- Collecting, analyzing and synthesizing data related to economic development, hazards and vulnerabilities, community development, resilience, housing, environmental and natural resources, demographics, infrastructure and land use planning
- Development of tools and training for municipal governments and agencies, for inclusion in the Resilience Toolkit
- Coordinate stakeholder engagement for planning process with and across multiple groups including Councils of Governments, non-governmental advocacy organizations, state and federal representatives, municipalities, state and federal agencies, academic partners, general public, with developing focus on those typically disenfranchised from planning process
- Design and implement the Resilient Connecticut Collaborative, a stakeholder advisory and design research study of same
- Direct engagement activities while CIRCA Director of Community Engagement is on leave. Assist
  Director of Community Engagement to coordinate broader Resilient Connecticut engagement
  activities; designing and facilitating workshops and meetings for residents, municipalities, regional
  councils of governments, and/or state agencies on climate resilience and adaptation
- Participate in the development of the regional and municipal resilience plans and direct stakeholder engagement regarding same
- Prepare journal articles and research presentations
- Participate in the planning, development and implementation of grant proposals
- Supervise two undergraduate interns

**UConn Connecticut Institute for Resilience and Climate Adaptation (CIRCA)**, Senior Resilience Planner (September 2019 – May 2020, full-time)

- Provide engagement, planning, and technical support to the Resilient Connecticut project;
- Prepare inventory and assessment of municipal and regional planning documents, including Plans of Conservation & Development and Natural Hazard Mitigation Plans
- Coordinate stakeholder engagement with and across multiple groups including Councils of Governments, non-governmental advocacy organizations, state and federal representatives, municipalities, state and federal agencies, academic partners, general public, with developing focus on those typically disenfranchised from planning process
- Coordinate CIRCA's relationship with councils of governments within the Resilient Connecticut project area
- Develop, prepare, and publish materials for website, social (Twitter and YouTube), and email
  distribution list (initiated and maintained YouTube channel); supervise production and distribution of
  monthly e-newsletter via Constant Contact
- Operationalize Resilient Connecticut Collaborative, a multi-sector stakeholder advisory group
- Assist in development of climate vulnerability assessment
- Coordinate and produce events such as topical workshops, annual summit, and bi-monthly webinars

Supervise two undergraduate interns

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Naromi Land Trust, GIS Specialist and Office Administrator (March 2019 – present, part-time)

- Coordinate engagement activities such as hikes or talks using multiple engagement methods such as email distribution list, social media, and website updates
- Produce monthly newsletter via Constant Contact, including new column, "Trails Tips," regularly republished in local newspapers
- Coordinate with multiple conservation organizations and community organizations to share resources and technical expertise
- Prepare GIS maps as necessary
- Manage donor database
- Assist Executive Director in budget review
- Manage deposits, bills, and donations through Quickbooks

# Northwest Hills Council of Governments, Regional Planner (May 2017 – June 30, 2019) Summary:

- Prepare regional GIS (Geographic Information Systems) maps and interactive online map portal
- Research and prepare grant applications, prepare grant reports for corresponding projects
- Prepare and provide advisory and informational assistance to local officials, citizens, and consultants on various environmental, emergency, and transportation planning topics such as: GIS, climate change, natural hazard mitigation, water quality protection, water utility coordination, and transit planning and coordination
- Make frequent oral and written presentations of planning studies and projects; conducts public outreach; researches best management practices and additional funding opportunities
- Analyze, evaluate, and synthesize data on natural resources and transit for regional planning
- Conduct variety of environmental planning for municipalities and region
- Finalize Litchfield Hills Natural Hazard Mitigation Plan Update 2016
- Represent NHCOG in environmental planning processes e.g. regional Western Water Utility Coordinating Committee (WUCC), State Water Plan stakeholder meetings, state Natural Hazard Mitigation Plan committee
- Manage Facebook page
- Post updates to website

#### Specific Projects & Activities of Note:

- Apply for grant, manage and produce Rural Resiliency Vision & Toolkit with interactive website (https://resilientrural.com)
- Apply for (successful) grant, coordinate local outreach, and oversee production and successful
  adoption of a Low Impact Sustainable Design Manual for town of Morris to incorporate green
  infrastructure and stormwater management into local planning and zoning regulations
- Coordinate Regional Trails Connectivity Assessment and interactive online mapping, create introductory webpage for the trails map (northwesthillscog.org/nhcogtrails), working with Regional Trails Committee, which included DEEP staff. Coordinate with other COGs on regional trail mapping and advocate for state-wide trail map. Project was awarded a CT American Planning Association Award
- Create GIS map of Northwest CT Transit District routes, analyze for bus sign and shelter opportunities according to best practice, coordinate multi-town commitment to project, prepare (successful) grant application, and coordinate acquisition
- Serve as Transportation Title VI Coordinator which entails preparing Title VI Plan, Limited English Proficiency Plan, and Public Participation Plan; delivering staff training; and responding to requests from the public.
- Prepare (successful) FEMA Pre-Disaster Mitigation (PDM) grant application for former Northwestern CT COG municipalities to prepare a multi-jurisdictional Natural Hazard Mitigation Plan, including negotiations with subject towns to prepare commitment of required 25% match. (Northwestern CT COG was a separate entity before merging with the Litchfield Hills Council of Elected Officials to create NHCOG.)

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- Support Executive Director where necessary on Regional Emergency Planning Team (REPT), including serving on multi-COG ESF-1 Transportation Committee for REPT Region 5
- Prepare memos, maps, and presentations for municipalities on multiple scenarios under the Exclusive Service Areas assignment process in the Western Water Utility Coordinating Committee; prepare draft response letters for municipalities representing each scenario

#### Northwest Hills Council of Governments, Assistant Planner (May 2015 – May 2017)

- Prepare Natural Hazard Mitigation Plan; represent NHCOG in regional Western Water Utility Coordinating Committee (WUCC) water supply process
- Coordinate multiple transit services throughout region to determine best practice, increase efficiency, and serve even greater population
- Collect and summarize demographic, economic, housing, transportation, natural resources, and land use data and information as requested by NHCOG planning staff to be used in the development, update, and implementation of regional and local Plans of Conservation & Development and regional Natural Hazard Mitigation Plan.
- Carry out specific research tasks and prepare technical written reports as requested by NHCOG planning staff with a minimum of supervision.
- Coordinate outreach through social media and website updates.
- Serve as Transportation Title VI Coordinator
- Regularly prepare presentations on various topics of interest to NHCOG members (i.e. aerial photography, GIS services)
- Reconcile bank accounts on QuickBooks
- Submit grant reports

# **UConn Connecticut Institute for Resilience and Climate Adaptation (CIRCA),** Temporary Project Specialist (January 2015 – March 2015)

- Conduct social engagement related to Connecticut's application for National Disaster Resilience Competition
- Coordinate and oversee public hearing and open house events for stakeholder groups
- Research community vulnerabilities and remaining unmet needs related to natural disasters
- Contribute to various application sections including leverage, vulnerability, and public consultation
- Communicate with inter-agency advisory team of multiple state agencies
- Collate, track, and sort community engagement efforts in the form required by the federal application.
- Create administrative documents such as sign-in sheets, comment forms, event notices

## Brawley Consulting Group, Consultant, part-time (May 2014-September 2014)

- Provide land conservation and management services to local land trusts and conservation organizations
- Draft Current Conditions Reports on conservation easements (conduct site visits, research soil and hydrological conditions, inspect property boundaries, determine conservation values)
- Research municipal plans such Plans of Conservation and Development, Natural Resources Inventory, Hazard Mitigation Plans, etc.

#### Translating Research to Inform Policy, Program Assistant, part-time (August 2013 – August 2016)

- Research and synthesize current techniques for science-policy communication
- Develop workshop for AAAS Science & Technology Policy Fellows Orientation in Washington DC
- Coordinate with other projects at the Center for Academic Innovation at Antioch University New England
- Conduct community outreach, acquisition and administration of travel grants, and organize sessions for May 2014 Local Solutions: Northeast Climate Change Preparedness Conference
- Draft University/College and professional organizations commitments to science-policy communication to be introduced by ESEP, a joint nation-wide venture for science-policy

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#### **Sherman Conservation Commission**, member (July 2011 – December 2018; chair, 2012-2014)

- Offer consultation and advice to municipal boards and commissions
- Conduct community-wide educational events such as Farm Day, Invasive Species Removal, etc.
- Review and contribute to the town's Plan of Conservation and Development
- Administer Facebook page (e.g. post educational material, network with similar partner organizations, and announce events)
- Represent Commission at public hearings, town meetings, and nongovernmental organization events
- Prepare Recreation & Scenic Resources chapter for Natural Resources Inventory

### HRP Associates, Inc., Project Scientist, full-time (September 2008 - January 2013)

- Market and develop projects with municipalities under the Energy Efficiency and Conservation Block Grant
- Develop permits and plans across environmental spectrum including compliance, health & safety, due diligence, emergency response, and soil/groundwater investigations
- Review municipal records, review aerial photographs, and state databases to develop environmental histories
- Work across multiple regulations including state and federal brownfields, NEPA, CERCLA, RCRA, EPCRA, CWA, NPDES, UST, and stormwater regulations including coordination of EPA Brownfields Grants for city of Torrington (grant application, city-wide Brownfields planning, and preparation of site assessments)
- Collaborate with nonprofits, municipalities, businesses, state and federal entities
- Deliver presentations and negotiate with NYDEC and CT DEEP regulators on complex projects (for example, Connecticut Stewardship Permit)
- Train new staff in regulatory requirements, office procedures, client management
- Provide environmental compliance assistance including auditing, permitting, and local/state/federal reporting requirements (e.g. EPCRA, Tier II, CWA, stormwater, NPDES, CERCLA, UST, etc.)
- Pursue new business opportunities, prepare proposals, build network, and respond to RFP/RFQ
- Coordinate with CAD and GIS staff to produce appropriate maps, figures, and displays
- Conduct work in tight timelines and set deadlines
- Perform soil and groundwater (including wastewater treatment, potable wells, groundwater monitoring wells) sampling
- Conduct and report Phase I, II, III site assessments, remedial action plans/investigations

#### Daniels & Porco, LLP Legal Intern, full-time (2006-2007)

- Conduct legal/case study research in support of litigation, mortgages, business creation, real property, and healthcare
- Review and edit letters written by associate attorneys
- Draft briefs and summaries of partnership meetings
- Answer phones, assist clients, and assemble marketing materials

# Connecticut Department of Energy and Environmental Protection (Seasonal, 2004-2007)

Lifeguard, Lifeguard Supervisor, Beach Director, Seasonal Park Supervisor

- Interface with the public: answering questions; designing events at the park such as National Trails Day and historical story bonfire; assist Spanish-speaking patrons
- Progressed from Lifeguard to Seasonal Park Supervisor over four seasons
- Supervise twenty employees in varying job functions delegate duties, generate comprehensive training exercises, develop optimal schedule for anticipated patron attendance
- Advise CT DEEP Commissioner and Director of State Parks on park re-design to improve safety,

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- public experience, and aesthetic quality
- Administer biohazard safety training program
- Represent the park at meetings with local and state government officials
- Assist in park maintenance including litter removal, mowing, string trimming, invasive species removal, etc. using heavy equipment
- Official Commendations in January 2006 and January 2007 by Gov. Jodi Rell for "Heroic Efforts as a Connecticut Lifeguard" and an Official Citation for "Outstanding and Courageous Service to Connecticut and Its People" in January 2007 by then CT Attorney General, Senator Richard Blumenthal.

#### **EDUCATION**

# Antioch University New England, Keene, NH

Ph.D. in Environmental Studies, 2017. *Understanding Community Character as a Socio-ecological Framework to Enhance Local-scale Adaptation: An Interdisciplinary Case Study from Rural Northwest Connecticut.* Available at http://aura.antioch.edu/etds/343/

## Johns Hopkins University, Baltimore, MD

Master of Science, December 2010 (Environmental Planning & Management), included courses such as Sustainable Development & Next Generation Buildings, Climate Change & Global Environmental Sustainability, and Environmental Project Management

Western Connecticut State University, Danbury, CT Calculus I, 2008

**Dutchess Community College**, Poughkeepsie, New York Statistics, 2007

# Drew University, Madison, NJ

Bachelor of Arts, finished early in December 2005; degree conferred, May 2006 (Political Science Major; American Studies, European Studies, and Environmental Studies minors)

#### ADDITIONAL PROFESSIONAL and VOLUNTEER EXPERIENCE

- Proficient in WordPress website development
- Proficient in Microsoft Office suite, Outlook, social media marketing (Facebook, Twitter, LinkedIn, YouTube), Google apps, MailerLite, ConstantContact, and MailChimp for email newsletters
- Regulatory training in Tier II EPCRA; Assessment, Cleanup and Redevelopment Exchange System (EPA ACRES system); HAZWOPER 40-hour; Asbestos Inspector Certification; LNAPL investigations

#### **COMMUNITY VOLUNTEER WORK**

- Board Member (former President), Friends of Happy Acres (501c3 focused on a town-owned farm)
- Secretary (former), Ad-hoc Advisory Group on Happy Acres
- Habitat for Humanity
- St. Bernard Project (post- Katrina rebuilding organization in St. Bernard Parish Louisiana)
- Member, Sherman CT Conservation Commission

# **CONFERENCE PRESENTATIONS & PUBLIC SPEAKING EVENTS**

"Research Universities as Climate Resilience Planning Partners". Panel Moderator. Annual Conference.

Association for Environmental Studies and Sciences. July 16, 2020. Virtual Conference.

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"Reimaging Collaborative Planning as a Community of Practice to Increase Adaptive Capacity", Conference session. Annual Conference. Association for Environmental Studies and Sciences. July 16, 2020. Virtual Conference.

"Resilient Connecticut". Invited Speaker. Regional Hazard Mitigation Advisory Committee, South Central Connecticut Council of Governments. June 25, 2020. Virtual Meeting.

"Vulnerability Assessment Demonstration and Application". Panel Facilitator. Resilient CT Summit. November 12, 2019.

"Creating a Regional Trail Map". Panel Moderator and Presenter. CT Trails Symposium. October 25, 2018.

"Local Resiliency - How Connecticut Towns are Tackling Climate Change through Councils of Governments." Panel Moderator and Presenter. SNEAPA October 2018 Conference. Hartford, CT.

"Rural Resiliency Sharing & Workshop Session." Public Outreach Session – Resilient Rural Project. July 2018. Goshen, CT.

"Municipal LID Design and Enhancing Rural Resiliency in the Northwest Hills." Creating a Resilient Connecticut: A CIRCA Forum on Science, Planning, Policy & Law. May 2018.

"Use of NVivo in Qualitative Methods." Invited Guest Lecturer. Western Connecticut State University. 2017. Danbury, CT.

"Uses of Google Street View and new 2016 Aerial Orthophotography for local Planning and Zoning Commissions". Northwest Hills Council of Governments. 2017.

"Defining Rural Character: A Northwest Connecticut Case-Study." Invited Colloquium Speaker. Antioch University New England. 2017.

"Municipal Resiliency: Local Problems, Local Actions". New England Soil and Water Conservation Society Winter Conference. February 24, 2017. Presentation on CIRCA LID grant and local-scale adaptation efforts.

"Overview of Predicated Climate Change Impacts to Connecticut." Invited Speaker. Northwest Hills Council of Governments, 5<sup>th</sup> Thursdays Outreach to Planning & Zoning Officials. 2016.

"Equitable Research within Rural Communities: Access and Representation." Conference session. Annual Conference. Association for Environmental Studies and Sciences. 2016. Washington, D.C.

"Call for a New Climate Adaptation Approach: Case Study of Rural Character for Holistic Adaptation." Conference session. Annual Conference. Association for Environmental Studies and Sciences. 2016. Washington, D.C.

"Identifying Rural Character's Climate Vulnerabilities." Poster Presentation. Biennial Conference. National Adaptation Forum. 2015. St. Louis, MO.

"Planning for Change: How do we maintain rural character while the world changes around us?" Conference session. Annual Conference. Association for Environmental Studies and Sciences. 2014. New York, NY.

Co-Presenter & Organizer, "Translating Science to Inform Policy," AAAS Science & Technology Policy Fellows, Washington, DC, September 9, 2013 & September 4, 2014

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#### **PUBLICATIONS**

Wozniak-Brown, Joanna. Crafting Rural Resiliency. Chapter in Heather Keith and Kelly Parker, Editors, *Pragmatist and American Philosophical Perspectives on Resilience*. 2019.

Wozniak-Brown, Joanna. "Rural Resiliency Vision & Toolkit". December 2018. Website and printable Toolkit. https://resilientrural.com

Wozniak-Brown, Joanna. Recreational and Scenic Resources. Chapter in Natural Resource Inventory Report and Recommendations Sherman, Connecticut 2018. Sherman Conservation Commission.

"EPA Releases Final Health Assessment for Trichloroethylene". Company White Paper, June 2012. HRP Associates, Inc.

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# **Krystal Pollitt**

Environmental Health Sciences, School of Public Health, Yale University 60 College Street, Room 523, New Haven, CT, 06520

### Ex. 6 Personal Privacy (PP)

# **Professional Experience**

2018 – Present	Assistant Professor of Epidemiology Environmental Health Sciences, School of Public Health Chemical and Environmental Engineering, School of Engineering & Applied Science Yale University, New Haven
2015 – 2018	Assistant Professor and the Commonwealth Honors College Professor in Environmental Health Science Environmental Health Sciences, School of Public Health and Health Sciences Civil and Environmental Engineering, College of Engineering University of Massachusetts, Amherst
2011 – 2014	Canadian Thoracic Society Research Fellow Chemical Engineering and Applied Chemistry, University of Toronto and Toronto General Research Institute, University Health Network
2007 – 2012	<b>Honorary Research Associate,</b> Division of Environmental Health and Risk Management School of Geography, Earth and Environmental Sciences, University of Birmingham

# **Education**

2007 - 2012	PhD, School of Biomedical and Health Sciences Medical Research Council Centre for Environment and Health King's College London, United Kingdom
	Thesis: Particulate Oxidative Activity and the Impact on Acute Human Respiratory Responses
2005 – 2007	MASc, Chemical Engineering and Applied Chemistry Southern Ontario Centre for Atmospheric Aerosol Research University of Toronto, Canada
	Thesis: Chemical Composition Fluctuations in the Gaseous and Particulate Phases of Urban Aerosols
2001 - 2005	BASc, Chemical Engineering and Applied Chemistry University of Toronto, Canada

#### Certification

2015 Professional Engineers Ontario, Professional Engineer Licensure 100198489

#### Research Interests

My PhD explored the impact of short-term air pollutant exposure on cardiorespiratory health. I was subsequently awarded a Canadian Thoracic Society Postdoctoral Research Fellowship focused on characterizing personal exposure to complex environmental exposures and their impact on respiratory health. My current research combines my interests and expertise in exposure science and analytical chemistry and aims to understand the influence of environmental exposures on the mechanisms of disease. My laboratory has developed analytical techniques to detect complex mixtures of environmental factors at the individual level. To facilitate measurement, I led the design, fabrication, and validation of a wearable passive air sensor, called the Fresh Air wristband. When coupled with high-resolution mass spectrometry, this wristband can be used to evaluate an individual's exposure to thousands of chemicals. Analysis of the wristbands by PCR can further be used to detect exposure a range of nucleic acids from respiratory viruses, including adenovirus, rhinovirus, and coronavirus. The low-cost design of this wristband has

enabled the occurrence and distribution of exposures to be evaluated across numerous international study populations, including multiple low- and middle-income locations (South Africa, India, China).

I am also interested in using low-cost air sensor technology to monitor exposure to criteria air pollutions in real-time. Together with the Public Health Institute of Western Massachusetts, Earthwatch, LiveWell Springfield, ReGreen Springfield and several local organizations, I established the Pioneer Valley Air Monitoring Network. This air sensor network includes 55 monitoring sites that stream measurements of  $PM_{2.5}$  mass concentration and  $O_3$  directly to a publicly accessible interactive website. This monitoring network was setup to raise awareness of poor air quality in this region that includes multiple environmental justice areas.

My work has resulted in 79 published peer-reviewed papers and 2 book chapters as of March 1, 2022. These publications have received a total of 2912 citations with an h-index of 30 and i10-index of 46.

Google Scholar Profile: https://scholar.google.com/citations?user=bbIUkCIAAAAJ&hl=en

## Key paper include:

- a. Lin, Z., Esenther, S.E., Mascelloni, M., Irfan, F., **Godri Pollitt, K.J.** (2020) The Fresh Air Wristband: Profiling Environmental Exposures using a Wearable Air Pollutant Monitor. *Environmental Science and Technology Letters*. 7(5): 308.
- b. Doherty, B.T. Koelmel, J.P. Lin, E.Z. Romano, M.E. **Godri Pollitt, K.J.** (2021) Use of Exposomic Methods Incorporating Sensors in Environmental Epidemiology. *Current Environmental Health Reports*. 8:34-41.
- c. **Godri Pollitt, K.J.**, Maikawa, C.L., Wheeler, A.J., Weichenthal, S., Dobbin, N., Liu, L., Goldberg, M.S. (2016) Trace metal exposure is associated with increased exhaled nitric oxide in asthmatic children. *Environmental Health*. 15:94.
- d. Weichenthal, S., Lavigne, E., Evans, G.J., **Godri Pollitt, K.J.**, Burnett, R.T. (2016) PM<sub>2.5</sub> and emergency room visits for respiratory illness: Effect modification by oxidative potential. *American Journal of Respiratory and Critical Care Medicine*. 194(5):577-586.
- e. **Godri, K.J.**, Harrison, R.M., Evans, T., Baker, T., Dunster, C., Mudway, I.S., Kelly F.J. (2011) Increased oxidative burden associated with the traffic component of ambient particulate matter at roadside and urban background schools sites in Greater London. *PLoS ONE*. 6(7):e21961.

# Other Experience and Professional Memberships

2015	Reviewer, Health Canada, Clean Air Regulatory Agenda Program
2016	Reviewer, Research Councils UK, Newton Fund, NERC
2017 - 2018	Ad Hoc Reviewer, NIH Adult Psychopathology and Disorders of Aging (APDA) Study Section
2020	Reviewer, NIH National Institute on Alcohol Abuse & Alcoholism (NIAAA) Study Section
2020 - 2021	Reviewer, NSF SBIR/STTR Panel
2022	Ad Hoc Reviewer, NIOSH Study Section
2019 -	Editorial Board, Toxics (MDPI)
2020 -	Associate Editor, Air Quality, Atmosphere & Health (Springer)
2020 -	Associate Editor, Current Environmental Health Reports (Springer)
2021 -	Associate Editor, Exposome (Oxford University Press)
2011 -	Member, American Association of Aerosol Research
2017 -	Member, International Society for Exposure Science
2019 -	Member, International Society for Environmental Epidemiology
2018-	Steering Committee Member, Pioneer Valley Asthma Coalition (PVAC)
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### **Honors and Awards**

2012	Best Poster Award, American Association of Aerosol Research Annual Meeting	
2013 - 2014	Canadian Thoracic Society Fellowship	
2016	Sustainability Teaching Fellowship, University of Massachusetts, Amherst, MA	
2017	Centre for Research on Families Scholar, University of Massachusetts, Amherst, MA	
2019	Rita Wilson Seed Grant Winner, InnovateHealth Yale	
2021	Yale School of Public Health Early Career Research Award	

#### A-18

#### **SANITARIAN I**

#### JOB DESCRIPTION

#### STATEMENT OF DUTIES:

This is entry-level professional public health work in the enforcement of sanitation laws and regulations relating to public and environmental health.

Work involves responsibility for achieving and maintaining environmentally safe conditions through the enforcement of the Public Health Code and Statutes and local ordinances pertaining to environmental health. Duties include inspections, investigations, surveying and report preparation. This position also has the responsibility for making difficult health and safety decisions. The work requires that the employee understands the laws, rules and regulations governing the enforcement of environmental health codes for which (s) he is responsible.

#### ACCOUNTABILITY & SUPERVISION:

Works under the direction of the Assistant Director for Environmental Health of the Naugatuck Valley Health District.

### **WORKING ENVIRONMENT:**

Employees working in this class will be required to perform occasional lifting of equipment and materials weighing up to 20 pounds. Duties will require significant walking and /or standing, some of which may be on uneven ground. Working outdoors in inclement weather and climbing of stairs may be required.

#### **DUTIES & RESPONSIBILITIES:**

- Performs routine inspections of food service establishments, public swimming pools, licensed body care establishments, day care centers and other facilities as required by state and local codes.
- ➤ Investigates environmental complaints such as garbage and rubbish disposal, housing code violations, improper sewage disposal, rodent and insect infestation, disease vectors, mosquito control and other unsanitary environmental conditions.
- ➤ If so certified, may investigate reports of children with elevated blood lead levels, provide parents and/or guardians with information on lead paint poisoning prevention, inspects or orders properties to be inspected for lead based paint and collects samples

necessary to perform a risk assessment of the child's environment. May prepare orders to abate lead hazards in accordance with state statutes and regulations.

- Educates food handlers and gives advice to food service personnel on proper food sanitation techniques; promotes training programs, and investigates reports of food borne illnesses.
- ➤ If so certified, may perform soil tests and evaluates the suitability of building lots for the installation of individual subsurface sewage disposal systems and issues permits for their construction. Inspects the installation to ensure conformance with the approved plan and state code.
- Assists in the review of plans for the construction of new food service establishments or the remodeling of existing facilities. Monitors work in progress and approves the completed construction before a license is issued.
- Regulates new private water supply wells including site inspections of property, issuing permits to well drillers and reviewing water sample analysis reports.
- Responds by telephone, in person, or in writing to persons seeking information regarding health rules and regulations, specific complaints, license requirements, and other environmental health problems.
- Prepares reports of inspections and investigations. Collects samples as required.
- Responds to emergencies and local public health occurrences of an urgent nature during and beyond the standard hours of operation.
- > Performs inspections or investigations during non-business hours as needed.
- Performs related work as required.

## KNOWLEDGE, SKILLS AND ABILITIES:

- ➤ Knowledge of the modern methods, principles and practices of public health sanitation.
- ➤ Knowledge of inspection and investigation techniques; knowledge of the causes, impacts of, and solutions to current public health problems.

- ➤ Knowledge of the sanitary sciences, including bacteriology, biology, chemistry and personal hygiene.
- ➤ Knowledge of, and the ability to interpret, explain and enforce the laws, ordinances and regulations governing environmental sanitation.
- Ability to communicate effectively orally and in writing.
- Ability to establish and maintain effective working relationships with other city employees, superiors, associates, representatives of outside agencies, and the general public.

## **QUALIFICATIONS:**

A bachelor's degree from a recognized college or university with major course work in public health, environmental health, the physical, chemical or biological sciences, sanitary or environmental engineering.

Testing for substance abuse, a physical examination, and a criminal background check may be required as part of the employment procedures.

# **SPECIAL REQUIREMENTS:**

Applicant must be certified in Food Service Inspection by the State of Connecticut within one (1) year of employment.

Possession of a current Connecticut Motor Vehicle Operator's License with access to a motor vehicle and current motor vehicle insurance coverage is required.

Maintenance of the above certifications shall be a requirement for the employee to remain in this classification.

## **DESIRABLE QUALIFICATIONS:**

Certification in Subsurface Sewage Inspection Phase I by the State of Connecticut.

Certification in Subsurface Sewage Inspection Phase II by the State of Connecticut.

Certification as a Lead Inspector by the State of Connecticut.

Certification as a Registered Sanitarian from the State of Connecticut.

Approved by the NVHD Board of Directors on January 14, 2014 and effective July 1, 2014.

#### A-21

## **HEALTH EDUCATOR**

#### NAUGATUCK VALLEY HEALTH DISTRICT

## JOB DESCRIPTION

## **GENERAL STATEMENT OF DUTIES**

This is a professional public health position with responsibility for assisting the development and implementation of public health education activities within the Naugatuck Valley region. The work involves a wide array of preventative health and health promotion activities aimed at improving the health and well-being of all residents, by encouraging individuals and communities to adopt healthy behaviors, policies, and environments.

## ACCOUNTABILITY AND SUPERVISION

The Health Educator reports directly to the Assistant Director for Community Health and in her absence to the Director or other designee.

# WORKING ENVIRONMENT/ESSENTIAL FUNCTIONS

The Health Educator is required to perform occasional lifting of equipment and material weighing up to 25 pounds. Duties may require climbing up and down stairways, significant walking, sitting and/or standing, some of which may be on uneven ground. Working outdoors in inclement weather may be required. The work requires the use of a computer and other business machines. The Health Educator is expected to respond to emergencies and local public health occurrences of an urgent nature occasionally during and beyond the standard hours of operation. The position may will work a 35 hour work week and occasionally on nights and weekends when needed.

# **EXAMPLES OF DUTIES AND RESPONSIBILITIES**

- Plans and coordinates community outreach, public health education and prevention programs.
- Prepares and disseminates educational material to the staff and the general public.
- Administers grant funded public health initiatives, such as, regional asthma programs.

- ➤ Utilizes the Lead Surveillance System for the collection, analysis and reporting of lead prevention and control. Conducts epidemiological investigations to determine source of lead exposure and coordinates with environmental health inspectors on actions to be taken.
- Assists in helping the Assistant Director to promote, organize and guide existing programs and help plan and develop new health programs.
- Assists with the development and implementation of the Community Health Improvement Plan.
- Assists with timely communication and risk communication to partners and the public, as needed.
- May be required to work evenings and/or weekends for community health education outreach, fairs and community meetings.

# **KNOWLEDGE, SKILLS AND ABILITIES**

- Thorough knowledge of the modern methods, principles, tools, program planning and practices of public health. Knowledge of the causes, impacts of, and solutions to current public health problems. Knowledge of quality improvement and program evaluation activities.
- Considerable ability to communicate effectively, both orally and in writing.
- Ability to follow oral and written directions, and to read and understand complex written material.
- Ability to prepare and maintain various records and reports, including computerized records, databases, and reports.
- Considerable organizational skills and an ability to work independently.
- ➤ Good interpersonal skills with a desire to work collaboratively; organize and facilitate individuals, teams, groups, multiple agencies, the general public, and diverse communities.

➤ Computer proficiency in word processing programs and databases. Power Point, spreadsheet, and other document formatting techniques, ability to create and maintain rapid electronic communications networks and maintain webpage.

# **QUALIFICATIONS**

➤ Have a Bachelor of Science in Public Health or related field; RN licensure and/or equivalent amount of related experience and training may be substituted. Master's degree is preferred.

# **SPECIAL REQUIREMENTS**

- ➤ Possession of a current CT Motor Vehicle Operator's License with access to a motor vehicle and current motor vehicle insurance coverage is required.
- Testing for substance abuse, a physical examination, and a criminal background check may be required as part of the employee procedures.
- Maintenance of required certifications shall be a requirement for the employee to remain in this classification.
- Bilingual a plus.

12.1.2015

Grant Application XML file (total 1):

GrantApplication.xml. (size 24205 bytes)

Forms Included in Zip File(total 6):

- 1. Form ProjectNarrativeAttachments 1 2-V1.2.pdf (size 16032 bytes)
- 2. Form SF424 3 0-V3.0.pdf (size 24183 bytes)
- 3. Form SF424A-V1.0.pdf (size 22741 bytes)
- 4. Form EPA4700 4 3 0-V3.0.pdf (size 23139 bytes)
- 5. Form OtherNarrativeAttachments 1 2-V1.2.pdf (size 15915 bytes)
- 6. Form EPA KeyContacts 2 0-V2.0.pdf (size 37482 bytes)

Attachments Included in Zip File (total 8):

- 1. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1240-CTDPH Air Monitoring Grant Key Personnel.pdf application/pdf (size 897481 bytes)
- 2. OtherNarrativeAttachments  $1_2$  OtherNarrativeAttachments  $1_2$ -Attachments -1241-EPA Form 4700-4 CTDPH w.attach 3.25.22.pdf application/pdf (size 9779627 bytes)
- 3. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1235-Section 5 Quality Assurance Statement.pdf application/pdf (size 176121 bytes)
- 4. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1238-CERTIFICATIONS.pdf application/pdf (size 202786 bytes)
- 5. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1237-CERTIFICATION REGARDING LOBBYING.pdf application/pdf (size 68404 bytes)
- 6. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1236-ASSURANCES NON-CONSTRUCTION PROGRAMS.pdf application/pdf (size 136297 bytes)
- 7. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1239-CT DPH Letters of Support Partnership.pdf application/pdf (size 4265189 bytes)
- 8. ProjectNarrativeAttachments\_1\_2 ProjectNarrativeAttachments\_1\_2-Attachments-1234-CT DPH Air Monitoring Grant project narrative 3.25.22\_FINAL.pdf application/pdf (size 488216 bytes)

## **Connecticut Department of Public Health**

Enhanced Air Quality Monitoring for Communities EPA-OAR-OAQPS-22-01

## I. Cover Page:

**Project Title**: Partnering with local organizations to develop health-relevant air monitoring resources for distressed communities in Connecticut

Applicant Information: Connecticut Department of Public Health

Set-Aside: no set-aside

**Brief Description of Applicant Organization:** The Connecticut Department of Public Health's (DPH) mission is to protect and improve the health and safety of the people of Connecticut by assuring the conditions in which people can be healthy, preventing disease, injury, and disability; and equal enjoyment of the highest attainable standard of health.

### **Project Partners:**

- Jessica Kristy, Director of Health, Naugatuck Valley Health District (NVHD), Naugatuck Valley Medical Reserve Corps Director, Region 5 Medical Reserve Corps Coordinator
- Paul E. Farrell, Director, Planning & Standards Division, Department of Energy and Environmental Protection (DEEP)
- Krystal Pollitt, Ph.D., P.Eng. Assistant Professor, Environmental Health Sciences, Yale School of Public Health, Chemical & Environmental Engineering, Yale School of Engineering & Applied Science (Yale University)
- Kristina Wagstrom, PhD, Associate Professor, Chemical & Biomolecular Engineering, UConn School
  of Engineering (University of Connecticut)
- Mariana B. Alfonso Fragomeni, MEPD, PhD, Assistant Professor Plant Sciences and Landscape Architecture, UConn College of Agriculture, Health and Natural Resources (University of Connecticut)
- Joanna Wozniak-Brown, PhD, Assistant Director of Resilience Planning, Connecticut Institute for Resilience and Climate Adaptation (CIRCA) (University of Connecticut)
- Beth Patton Comerford, MS, Co-Director Yale-Griffin Prevention Research Center (PRC)

Project Location: Ansonia and Derby, CT

Air Pollutant Scope: PM<sub>2.5</sub> mass concentration, ozone

Budget Summary: EPA funding request: \$500,000; Total project cost: \$500,000

**Project Period:** 11/1/2022 - 10/31/2025

#### **Short Project Description:**

DPH and project partners will develop a pilot project intended to raise community awareness of air pollutants using a community-based educational toolbox and a web-based dashboard. The project will establish a network of low-cost air sensors to provide real-time measurements of pollutants of concern (PM<sub>2.5</sub> and ozone) in environmental justice communities and provide training modules and an education and outreach campaign for community members to lead long-term air sensor network operation. The toolbox and real-time reporting dashboard will provide information about the effects of poor air quality days on health and link to existing programs to support community health.

#### Workplan:

#### Section 1 - Project Summary and Approach

The project will build capacity and knowledge for monitoring outdoor air quality (fine particulate matter,  $PM_{2.5}$ ; ozone,  $O_3$ ) in real-time and at a hyperlocal-scale in the distressed communities of Ansonia and Derby, CT. An educational toolbox will be developed containing community tailored engagement materials, air quality monitoring network program deployment guidance and standard operating procedures for sensor placement, installation and maintenance, as well as options for reducing exposure to air pollution. Community feedback will be incorporated into the decision-making process and DPH and its partners will encourage and facilitate the involvement of those potentially affected. Project goals include increased stakeholder and community knowledge of health effects, vulnerabilities, and available options for reducing the adverse health outcomes associated with poor air quality. As part of the toolbox, an outreach and education component will be deployed within school systems hosting the air quality sensors, including teacher training to integrate a community-based air quality monitoring component within the curriculum for participating schools utilizing EPA's Air Quality Flag Program.

## A. Overall Project

Year 1: DPH will hire a 0.5 fulltime equivalent, Environmental Analyst, to serve as the Project Coordinator (PC) to manage and lead this project. The PC will facilitate partner communication, set up meetings, conduct outreach with local government officials, research existing projects and published works, develop plans and conduct the required reporting. DPH will establish contracts with project partners and be responsible for ensuring benchmarks are reached to meet expected deliverables and outcomes. Project planning will include the development of a community engagement plan. DPH and project partners will engage community members, local businesses and non-profit organizations through directed communications, e-mail notices and social media postings. This project will be the focus of an Earth/Asthma Day symposium hosted by NVHD and project partners. Toolbox development of the educational components including the Quality Flag program and community aids will be ongoing throughout year 1. After the initial community contact phase, the PC and project partners will work with community members to identify sensor placement locations within the distressed communities of Ansonia and Derby, CT. The Yale team along with community partners will install a network of commercially available, low-cost air sensors (Tetrad AirU). This network will allow for real-time monitoring of PM<sub>2.5</sub> and ozone levels across the pilot communities. The target density for sensor placement is 2-3 sensors per km<sup>2</sup> for a total deployment of approximately 70 sensors. This sensor density will enable hyperlocal spatial variation of air quality to be assessed, highlighting contribution from local emission sources of concern. In addition to 70 Tetrad AirU sensors, project partner DEEP, will be providing 10 Purple Air sensors to serve as co-located monitors to evaluate this alternative technology for community-based monitoring.

Year 2: During year 2, PC and project partners will pilot the public education toolbox through a campaign in partnership with local television news stations and social media outlets, which will provide information about the effects of poor air quality days on health. This will include an online dashboard and public guidance on to how to incorporate sensor data into daily life. As Phase I of the toolbox, DPH will customize a train-the-trainer program and community level outreach aids, programs, activities (i.e., pop-up-parks), and presentations as part of a more comprehensive community-based air monitoring program. DPH will review the EPA's Air Sensor Toolbox and utilize existing tools as well as community specific training resources. Education and outreach will include actions and activities developed based on project specific monitoring data. The toolbox will be created in partnership with teachers, environmental advocates, and citizen-scientists. The PC and partners will be working as a team with community members to help understand and address the region's air quality challenges. The toolbox will also include evidence-based, comprehensive asthma training materials and links to existing programs. The Yale team will provide continued maintenance of the air sensor network to ensure high

quality data is reported. Generated air quality data will be used to develop forecast estimates of PM<sub>2.5</sub> and O3 by the UConn team using machine learning to aide in local air quality management. NVHD will host the 2<sup>nd</sup> annual Earth/Asthma Day symposium highlighting community and project accomplishes. **Year 3**: PC and partners will deploy Phase II of the toolbox. Phase II will include substantive improvements and changes based on performance data, effectiveness of the training, and further refinement using sensor data results. NVHD will host the 3<sup>rd</sup> annual Earth/Asthma Day symposium. Sensor maintenance and online dashboard refinement will be ongoing. Project partner, Naugatuck Valley Health District, will integrate the project with its Environmental and Community Health Services Divisions to ensure sustained community engagement. Existing community partnerships will be leveraged, and future funding opportunities will be explored to continue the project into year 4 and beyond. It is expected that an annual symposium will be established, and community outreach and education will continue for years to come as the community takes ownership and control of the monitoring network. Specific project partner activities are outlined in Table 1 Tasks and Deliverables.

Table 1 Tasks and Deliverables

anie 1 19372 gild Deliveranies	T	T			
Year 1	Year 2	Year 3			
Establishing subawards contracts	Implement Phase I of the toolbox.	Website maintenance (Yale)			
and deliverables (DPH)	(PC, NVHD)				
Hire/appoint a Project Coordinator	Present the community	Video contest to promote social			
(DPH)	engagement plan to project	engagement to middle school and			
Develop, in conjunction with	partners for review and	high school (PC, NVHD)			
project partners, a Community	refinement. Quality control and	Annual project symposium to			
Engagement Plan. (All)	quality assurance plan review (PC)	review progress and available resources (All partners)			
Overlay sensor placement with	Performance measure data	Implement Phase II of the toolbox.			
existing mapping (UConn)	collection: analyzed for project	Substantive improvements and			
DPH Mapping links: DPH asthma	effectiveness. (PC) Video contest to	changes based on year 2			
GIS, hospital ED PM <sub>2.5</sub> , hospital ED	promote social engagement to	performance data, effectiveness,			
PM <sub>10</sub> (PC, DEEP, UConn)	school students. (PC, NVHD, DEEP)	and monitoring data results. (PC,			
PIVI10 (PC, DELP, OCOIIII)	school students. (PC, NVIID, DELP)	DEEP, NVHD)			
Surveying community and	NVHD to host Earth and Asthma	Expand community engagement.			
engaging in public forums and	Day events and roll out social	Engage the community during			
focus groups to determine sensor	media messaging. Annual project	farmers markets, place			
placement. Encourage local	symposium to review progress and	information kiosks, pop-up-parks,			
participation and actively recruit	available resources (All)	community garden locations. (All)			
local "citizen scientists" to host air					
sensors. (All)					
Quality control and quality	Host quarterly meeting to inform	Continued modeling of air quality			
assurance plan developed (PC,	the public and local business on	forecasts (UConn)			
Yale, DEEP)	project progress (NVHD, PRC)	Develop program transition plan.			
		(NVHD, PC)			
Engage with the Greater Valley	Introduce air quality flag program	Continue the Air Quality Flag			
Chamber of Commerce to inform	and recruit schools to participate.	program. Develop transition plan.			
local businesses and promote	School specific data will be used to	(PC, NVHD, Yale, DEEP) Develop			
sensor placement. (NVHD, PRC)	inform the Flag Program. (PC,	program transition plan. (NVHD,			
, , ,	NVHD)	PC)			
Host quarterly public meetings to	Maintain air monitoring website.	Host quarterly meeting to inform			
include local businesses on project	Develop a sensor maintenance and	the public and local businesses on			
progress. Define parameters for	replacement plan. (Yale)	project progress and direct the			
the public education campaign (PC,	Pop-up-parks and information	transition plan (NVHD, PRC)			
NVHD, PRR) Website launch (Yale)	kiosks placement (UConn)	, , , ,			

Host Earth and Asthma Day events.  NVHD to host an annual project symposium kick off the project and public education campaign (All) Performance measure data collection (PC, NVHD, Yale, UConn)	Survey community members and engaging in public forums and focus groups to gauge effectiveness of monitoring program and sensor placement. (NVHD, PRC)	Initiate transition plan end of year 3. Website hosting, community engagement plan, custom Toolbox, flag program material, monitor sensor maintenance and replacement plan (PC, NVHD, Yale)
AirU sensor location and deployment plan created with installation throughout year 1. (Yale) Purple Air placement plan and sensor installation (DEEP)	Forecast modeling One year of monitoring data reviewed (UConn) Pop-up-parks and information kiosks placement (UConn)	Two years of monitoring data available for review (UConn)
Quality control and quality assurance plan developed. Quarterly reporting (PC, Yale)	Quartey reporting (DPH PC) Quality control and performance measure data collection (PC) Forecast modeling One year of monitoring data reviewed (UConn)	Quartey and final grant report. (PC) Quality control and performance measure data collection (PC)

## **B.** Project Significance

Fine particulate matter (PM<sub>2.5</sub>, diameter  $< 2.5 \mu m$ ) and ozone (O<sub>3</sub>) are criteria air pollutants regulated by the EPA due to the established literature demonstrating a strong link with adverse health. Exposure to these air pollutants can cause range of acute symptoms such as eye, nose, throat and lung irritation, coughing, sneezing, and shortness of breath. PM<sub>2.5</sub> and O<sub>3</sub> have further been shown to be associated with an increased risk of development and exacerbation of respiratory and cardiovascular diseases. Enhanced susceptibility to air pollutants has been demonstrated for children, pregnant women, older adults, and individuals with pre-existing heart and lung disease. PM<sub>2.5</sub> is released directly from different emission sources, including transportation and industry. In contrast, O₃ is a secondary pollutant that is formed in the atmosphere following the reaction of volatile organic compounds and nitrogen oxides. The pre-cursors and atmospheric conditions required for O₃ formation often result in elevated levels of this criteria pollutant downwind of emission sources, presenting challenges for managing air quality levels. Outdoor levels of PM<sub>2.5</sub> and ozone vary across time and space as such poor air quality may impact individuals for a short period of time during the day, or more frequently during a given day. Exposure to pollutants can occur over multiple days, weeks, or months due to seasonal air pollution, such as increased ozone during the summer or PM<sub>2.5</sub> from combustion pollutants related to winter heating during the winter.

Existing monitoring networks underestimate air quality in underrepresented regions due to the limit number of measurement sites. Establishing air quality monitoring in impacted communities is the first step in evaluating localized air quality and subsequently proposing specific measures to improve localized air quality by reducing local pollution and thereby improving public health. Low-cost sensor networks can supplement these existing EPA/research monitoring networks and provide increased spatial and temporal resolution, capturing variations in local sources. This project seeks to provide protection from environmental and health hazards in two pilot towns, Ansonia and Derby. Project activities also look to provide residents opportunities to impact environmental justice decision-making processes within their respective town through participation in community forums and focus groups. Currently, neither of these towns have the resources to monitor local air quality. This project will provide tools to inform residents in these underserved areas. Installation of air sensors will provide the towns with high quality data for informed decision making and can be used at the state-level to influence state planning. The project will provide training modules and an education campaign for community members to support long-term air sensor network operation. The toolbox will provide

information about the effects of poor air quality days on health and link to existing programs to support community health. Using this information, individuals and families can reduce time outdoors when air quality is poor and plan their healthy outdoor activities for periods with more favorable air quality conditions. As discussed further below, these communities have disproportionately high asthma rates for Connecticut, and this information should be especially valuable to those with asthma as well as others who are more vulnerable to conditions due to underlying conditions.

The monitoring network will become part of the long-term community infrastructure and serve as a resource that will be available to the community beyond the funding period. Once the air monitoring network has been installed, the partnering organizations and local community groups can begin engaging with residents, including creating a toolbox on how to integrate this new source of information into their daily lives and for community planning. Taking control of these assets with no additional cost beyond maintenance is important to ensure these financially challenged communities can keep this project going into the future.

## <u>Section 2 – Community Involvement</u>

## A. Community Partnerships

Planned roles of each partner are listed in section 1A, Table 1.

The Naugatuck Valley Health District (NVHD) is the public health agency for the communities of Ansonia and Derby and is committed to improving the quality of life for all it serves through the promotion of health, prevention of disease, and by assuring a safe and clean environment. Informing, educating and empowering people about public health issues is one of the ten essential services of public health. NVHD follows these nationally recognized essential services in its planning and delivery of services which included community education initiatives like this project. The health district seeks to provide accessible health information and resources to reinforce health promotion messages and programs and partnering with DPH to assist with this project will further NVHD's goals.

NVHD will dedicate two staff, 5 hours per week to complete project tasks. A Sanitarian I and Health Educator (job descriptions attached) will work with the DPH PC to complete specific tasks. NVHD will leverage existing partnerships developed through their Community Health Improvement Plan (CHIP) to optimize community engagement and partnerships.

The Yale-Griffin Prevention Research Center (PRC) was established in 1998 through a grant from the Centers for Disease Control and Prevention (CDC). PRC is part of the CDC's Prevention Research Centers network of 26 academic research centers across the United States. PRCs work with community partners to develop, implement, and evaluate community-based approaches to help prevent and control chronic diseases. The Yale-Griffin PRC has an existing Community Committee that includes representatives from community agencies and organizations, along with representative members from target communities. One of the committee's primary functions is participating in the establishment of community health priorities. The PRC worked with NVHD to develop the CHIP. PRC and NVHD have partnered on many projects.

#### B. Community Engagement

DPH will develop a community engagement plan designed to optimize community involvement and participation. NVHD and Yale-Griffin PRC will evaluate and provide community specific comments and inform programmatic decisions. Data will be shared throughout the project and be highlighted on a website specifically designed for this project. All monitoring sites will stream measurements of PM<sub>2.5</sub> mass concentration and ozone directly to a publicly accessible interactive website. NVHD will host an annual symposium, to coincide with Earth and Asthma Day each project year. The symposium will include stakeholders, community members, and scientific partners and will focus on program progress, share program lessons, and identify ways to expand and improve program activities. A social media campaign will be developed to further these efforts. Further, quarterly meetings with community members and stakeholders will be held. A stipend will be allotted to facilitate community involvement.

Transportation costs will be reimbursed for travel associated with meeting attendance. Also, small increment \$5.00 or less gift cards will be purchased by NVHD to further incentivize community members to participate. Several meeting will be held virtually to allow maximum community participation.

NVHD currently facilitates community involvement and promotes community health education programs. They have a proven track record for promotion and community engagement. NVHD has a fulltime community health educator that will be directing local efforts to complete project deliverables. During grant award years 2 and 3, DPH and NVHD will host a contest to promote social engagement by supporting middle school or high school students in creating video projects on air pollution and its impact on health. The winning video for each age group will be featured on the website and used in the social media complain.

## <u>Section 3 – Environmental Justice and Underserved Communities</u>

Ansonia and Derby were chosen based on a combination of being high need communities that have been and continue to be adversely affected by the COVID-19 pandemic, being in a potentially high-risk geographic area, as well as the current absence of any present monitoring systems in the area. Ansonia and Derby were ranked 3<sup>rd</sup> and 6<sup>th</sup> in Connecticut, respectively, for being high distressed municipalities out of the 169 municipalities in the state. According to C.G.S. Section 32-9p, a distressed municipality should be based on "high unemployment and poverty, aging housing stock and low or declining rates of growth in job creation, population, and per capita income."

Ansonia and Derby are in New Haven County, which has the highest mortality rate in Connecticut for COVID-19 and report a current total case rate of 23,989 and 23,373 per 100,000, respectively (COVID-19 Daily Report | Connecticut Data). The pandemic has exacerbated the economic challenges in both communities as well. Prior to the pandemic, in 2019, the unemployment rates were 5.1% for Ansonia and 4.3% for Derby. In 2020, Ansonia's unemployment rate increased to 11% and it increased to 9.8% for Derby (Labor Market Information - Historical Labor Force Data By Town (state.ct.us)). By December 2021, Derby's unemployment rate decreased to 5.8%, and Ansonia's rate fell to 7.6%, however, this represents the highest unemployment rate in the state.

These communities are in unique geographic areas, which may affect the distribution and concentrations of particulate matter that may put parts of these communities at elevated risk, and monitoring should provide valuable information in making this assessment. Ansonia and Derby are in the Naugatuck Valley, with populations of 18,918 and 12,325 respectively. With many white non-Hispanic residents (72.9-78.5%), these towns have an averaged poverty prevalence of 13.4%, 1.4 times the state's poverty (9.7%) using census data. Surveillance data indicate that in 2019, residents of Ansonia and Derby had higher asthma-related Emergency Department (ED) visits and hospitalization rates than the state's average rate, with Derby's hospitalization rate, 3.1 times higher than CT's hospitalization rate for asthma.

Exposure to outdoor air pollution can exacerbate people's asthma symptoms as well contribute to the development of a new onset of asthma as air pollutants irritate the airways and increase the risk of sensitization. Per the CT's school-based asthma survey for the school year 2020-2021, Ansonia and Derby's students are disproportionately affected by asthma, with higher asthma prevalence (18.6% and 17.4%) compared to rest of the state (12.9%). Moreover, non-Hispanic Black students living in Ansonia and Derby bear the highest burden of asthma, with the highest rates of 28.8% and 25.5%. Both Ansonia's and Derby' school District Reference Group's classification reveal that the districts have the second lowest income level out of 172 school districts. Additionally, Ansonia and Derby rank high on the EPA EJ Screen Tool 2.0 for asthma; portions of Ansonia are within the 95-100 percentile and Derby is within the 90-95 percentile for CT municipalities.

Asthma is the leading cause of chronic illness-related to absenteeism among students and linked to lower academic <u>performance</u>. Chronic absences are highest in children living in poverty, up to 2.5 times more than students who do not receive free meals in <u>schools</u>. People who have moderate-to-

severe or uncontrolled asthma may be at higher risk of severe illness COVID-19.

New Haven County had one the state's highest incidence of Lung and Bronchus Cancer (2014-2018) (<a href="https://statecancerprofiles.cancer.gov/">https://statecancerprofiles.cancer.gov/</a>), high smoker incidence (18.0%; CT: 14.6%) <a href="https://statecancerprofiles.cancer.gov/">high smoker incidence (18.0%; CT: 14.6%)</a>) <a href="https://statecancerprofiles.cancer.gov/">high diabetes</a> <a href="https://statecancerprofiles.cancer.gov/">high smoker incidence (18.0%; CT: 14.6%)</a>) <a href="https://statecancerprofiles.cancer.gov/">high smoker incidence (18.0%; CT: 14.6%)</a>) <a href="https://statecancerprofiles.cancer.gov/">high diabetes</a> <a href="https://statecancerprofiles.cancer.gov/">high smoker incidence (18.0%; CT: 14.6%)</a>) <a href="https://statecancerprofiles.cancer.gov/">high diabetes</a> <a href="https://statecancerprofiles.cancer.gov/">high diabetes</a>) <a href="https://statecancerprofiles.gov

# <u>Section 4 – Environmental Results—Outcomes, Outputs and Performance Measures</u>

## A. Expected Project Outputs and Outcomes

Project outputs and outcomes are detailed in the below Table 2, Outputs and Outcomes. DPH will assess how the short-term outcomes contribute to the intermediate and long-term outcomes by considering issues including time, scale and complexity. The evaluation approach allows for continuous improvement, incorporates stakeholder and community participation, and applies a mixed methods approach that tracks both individual and system-level change. Finally, the approach will assess the degree to which positive outcome are realized among sub-populations most at risk by designing evaluation measures to capture participant demographic data; by stratifying evaluation results according to indicators of vulnerability (e.g., race/ethnicity, income, and age) when possible; and by evaluating the interventions' locations against the Connecticut Institute for Resilience and Climate Adaptation (CIRCA) climate and social vulnerability index maps and EPA's EJ Screen tool.

**Table 2 Outputs and Outcomes** 

Table 2 Outputs and O	utcomes	_	
Outputs	Short-term Outcomes	Intermediate Outcomes	Long-term
			Outcomes
1. Enhance and	-Increased stakeholder (SH) and	-Reduced adverse health	-Widespread
expand community	community knowledge of	outcomes due to air	adoption and
knowledge through	pollution hazards, health effects,	pollution among	replication, and
various activities and	vulnerabilities, and available	community members	expansion of
information	tools for reducing negative		monitoring
exchanges.	health outcomes	-Local policy action:	infrastructure and
	-Community input and	implement air monitoring	Toolbox use
2. Community-	involvement in Toolbox	education in schools.	
specific assessments	development and	Incorporate the Flag	-Reduced negative
of air pollution data:	implementation	Program and localized	health outcomes in
problem	-Problem identification through	messaging regarding air	regions and among
identification	deployment of sensors, near	quality index	populations
	real-time data, web-based		vulnerable to the
3. Identify, Use, and	dashboard	-Enhanced evidence base	adverse effects of
Disseminate Lessons	-Increased access to information	for effective air pollution	air pollution
Learned on	and tools that increase	awareness	
Effectiveness of	understanding and reduction of		-Mature air
Toolbox	environmental and human	-Community action to	pollutant
	health risks.	mitigate certain air	monitoring
4. An air quality	- Routine quality improvement	pollutant(s): pop-up parks,	infrastructure
monitoring network	and increased effectiveness of	green space installations,	
providing near real-	Toolbox	informational kiosks	-Community long-
time air quality data	- Implement partners use of		term air sensor
availability for	process evaluation results to	-Community based	maintenance plan
communities and	improve/inform Toolbox	identification of good, fair,	
stakeholders	adaptation in communities	and poor air quality days	
		based on local thresholds	

# **B.** Performance Measures and Plan

Evaluation and performance measurement results will be integrated into our program's ongoing activities so that our evaluation measures and findings drive continuous improvement of our plan.

# **Table 3 Performance Measures**

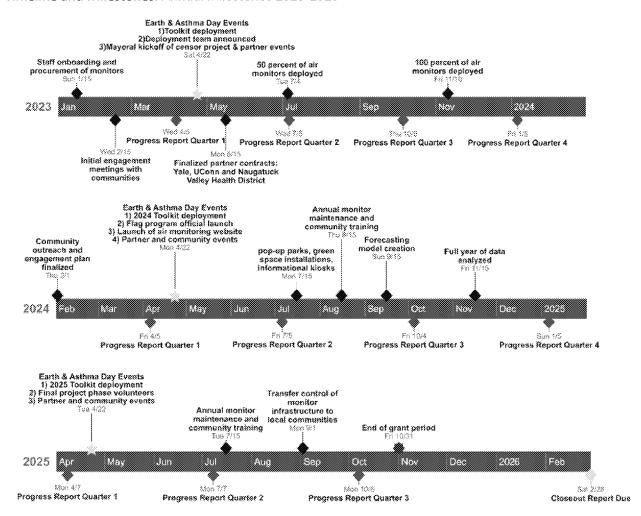
Outcomes (Short and Intermediate)	Example Performance & Process Measures	Data Collection							
Output 1: Enhance and expand comm	nunity knowledge through various active	vities and information							
exchanges.									
-Community outreach and awareness	- # educational materials produced	- Quarterly meeting minutes							
program coupled with an educational	- # participants in educational	-Attendance Logs							
Toolbox	programs	- community and SH survey							
-Increased SH and community	-# local business hosting sensors	(closed and open-ended							
knowledge of pollution hazards,	-# attending annual symposium	questions)							
health effects, vulnerabilities, and	-# of website dashboard visitors	-Process tracking forms							
available tools for reducing negative	-#of pop-up parks or kiosks	- meeting minutes							
health outcomes	-#of visitors to pop-up parks or	- Symposium agenda							
-Community action to mitigate certain	informational kiosks	-demographic information							
air pollutant(s): pop-up parks, green	- # in attendance at quarterly	of event participant							
space installations, informational	meetings of Community Committee	- Community Engagement							
kiosks	and CHIP - Survey results from	Plan -response to feedback							
-Community input and involvement in	inclusion & engagement survey	is documented							
Toolbox development and	(including qualitative feedback for	-posters and bulletins for							
implementation	process improvement)	display in kiosks							
Output 2: Identify, use, and dissemin	ate lessons learned on effectiveness of	f the Toolbox							
-Routine quality improvement	- Evaluation results bring about	- Project partner and							
- Implement partners use of process	updates to Toolbox	CHIP/Yale Griffin meeting							
evaluation results to improve/inform		minutes							
Toolbox adaptation in communities									
Output 3: Community-specific assess	ments of air pollution data: problem ic								
-Among community members increase	- Among participating community	- Pre/post survey							
or improved knowledge, behavior, and	members, schools, community	-Data analysis							
access to resources	organizations: increased awareness								
-Problem identification through data	and increased knowledge								
analysis	- % participants planning to change								
-Reduced adverse health outcomes	behavior because of educational								
due to air pollution among community	program								
members									
- Local policy action: implement air	- # of schools participating in the Flag	-Participation report							
monitoring education in schools.	Program and corresponding								
Incorporate the Flag Program and	curriculum								
localized messaging regarding air									
quality index									
	vork providing near real-time air quali	ty data availability for							
communities and other stakeholders									
-Enhanced evidence base for effective	- # of sensors deployed	- Process tracking forms							
air pollution awareness	-# of website dashboard visitors								

-Community based identification of	% of community members that
good, fair, and poor air quality days	altered activity due to air index
based on local thresholds	

- Website text, Toolbox data community survey data

rating

#### C. Timeline and Milestones: Annual milestones 2023-2025



<u>Section 5 – Quality Assurance Statement- Attachment</u> Section 6 – Programmatic Capability and Past Performance

#### A. Past Performance

<u>Building Resilience Against Climate Effects (BRACE) Grant-</u> The DPH successfully applied for and received a competitive grant funded by the CDC for \$300,000 annually for 9/1/2021 – 8/31/2026 to develop mitigation and adaption actions to address public health impact to vulnerable populations, within disadvantaged communities due to climate change. This project and grant will be administered within the DPH OCPH.

<u>Public Water System Supervision (PWSS) Grant-</u> Since 1977, the DPH has been delegated primacy from the EPA and has annually applied for and received the PWSS grant to enforce the requirements of the Safe Drinking Water Act (SDWA) and ensure public water systems comply with the National Primary Drinking Water Regulations. The DPH has had a biannual Performance Partnership Agreement (PPA) with EPA since 1998. The annual PWSS grant (approx. \$1.4M) funds 8.3 DPH staff and assists in support

of activities addressing per- and polyfluoroalkyl substances (PFAS) and other contaminants of emerging concern.

<u>Capitalization Grant-</u> The DPH has received annual capitalization grants from the EPA since 1997 to implement the Drinking Water State Revolving Fund (DWSRF) program. Since 1996, DPH has loaned over \$400 M to 300 projects and has successfully administered annual set-asides in administration, small system technical assistance, program management, capacity development and wellhead protection.

#### **B.** Reporting Requirements

<u>Building Resilience Against Climate Effects (BRACE) Grant-</u> To date the DPH continues to establish its partners and stakeholders and all reporting requirements for the grant thus far have been met, including the development of a Performance Measurement Plan, Data Management Plan and Adaptation Action Evaluation Plan. DPH has bi-monthly Microsoft Teams meeting with the CDC grant team and its Principal Investigator is the Chair of the Community of Practice Committee.

Public Water System Supervision (PWSS) Grant- The DPH annually assesses performance in the key areas covered under the PWSS Program and is committed to accomplishing the goals and priorities developed under each PPA. The DPH routinely meets or exceeds performance measures, including Government Performance and Results Act (GPRA) measures and annually submits a progress report to EPA.

Capitalization Grant- An DWSRF Program report is developed and submitted annually to report information regarding key project characteristics, milestones, and environmental/public health protection results. The DPH continues to meet all administrative and programmatic conditions and submits all financial and programmatic reports when required.

The DPH has been in receipt of CDC and EPA Awards for many years and continues to maintain financial management systems that allow for the proper management and segregation of funds by program. The DPH financial management system meets the requirements stated in the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for EPA Awards and other grantors of the state.

C. Staff Expertise Dr. Kristina Wagstrom's (UConn) experience focuses on air pollution modeling, and her lab is currently deploying air pollution monitoring in other areas of Connecticut. Dr. Mariana Fragomeni's (UConn) experience focuses on evaluating urban heat and deploying "pop-up parks". These researchers have partnered with community organizations and local government throughout Connecticut on projects related to the work proposed here. (CVs attached) Dr. Krystal Pollitt (Yale) has extensive expertise in air pollution exposure assessment. She has experience building air quality monitoring networks to assess PM<sub>2.5</sub> and ozone levels in environmental justice communities.

Paul Farrell, Director, Bureau of Air Management Planning and Standards Division (DEEP) has twenty-nine years of experience with air quality regulation and grant program design, implementation and management for the State of Connecticut, including mobile source and stationary control programs, and state implementation plan development.

DPH staff: Rachel Nowek EHDW Branch Manager: Grants and Administration; Marie-Christine Bournaki, PhD, RN, Asthma Program Supervisor, Community, Family Health & Prevention Section. Dr. Bournaki is the department's lead Asthma expert. Amanda Clark, Environmental Analyst 3, Interim Project Manager, and Interim BRACE PI. As Interim Project Manager, Ms. Clark will manage the project day to day progress until the PC can be appointed. Ms. Clark has 20 years of public health enforcement and project management expertise.

#### Section 7 – Budget

# A. Salaries and Wages

Position Title &	Annual Salary	Time	Months	Amount
Name				Requested
Environmental	\$69,106	50%	36 months	\$103.659
Analyst 2 (vacant)				

Total Personnel \$103,659

Environmental Analyst 2 (Vacant\*): DPH will hire a 0.5 FTE Environmental Analyst 2 to assume the role of Project Coordinator to collaborate with project partners and lead the project. The level of effort proposed for the Environmental Analyst 2 is 50% for a total of 36 months.

B. Fringe Benefits Fringe benefits computed by an established rate.

Fringe Benefits Total \$ \$99,699 96.18% of Total salary = Fringe Benefits

C. **Travel** Motor Vehicle Rental: An amount of \$500 has been estimated for current state vehicle rental time spent, as needed, to deploy air sensors and weather stations to their determined locations.

<u>Motor Vehicle Fuel:</u> An amount of \$300 has been estimated for motor vehicle fuel costs as needed for use of the motor vehicle rental.

- D. Equipment: N/A
- E. **Supplies:** Low cost, commercially available, real-time air quality sensors to be installed for community level monitoring in the pilot towns of Ansonia and Derby, CT.

Air Sensor: Qty-36 @ \$265/each (includes installation materials) = \$9,540

Air Sensor + WiFi: Qty-36 @ \$645/each (includes WiFi package and 3 yr contract) = \$23,220

Air Quality Flags: Qty-5 @ \$100/each set = \$500 Weather Station: Qty 5@ \$180/each = \$900

## F. Contractual Name of Contractor: University of Connecticut

<u>Nature of Services</u>: The Connecticut Department of Public Health will enter into a Memorandum of Agreement (MOA) with UConn for the duration of this project period. The MOA will fund data analysis and evaluation, forecast estimate modeling, "pop-up parks", community engagement, and incorporation of Resilient Connecticut planning and social vulnerability.

<u>Method of Selection</u>: UConn has been selected for this contract because they are uniquely qualified with available staff, expertise and experience to provide the needed services.

<u>Schedule</u>: The funding for this project is projected for 36 months. Estimated start date for the contract is 11/1/2022.

Estimated Costs: This project will receive funding in the amount of \$35,202.

• Name of Contractor: Yale University School of Public Health

Nature of Services: The DPH will enter into a Professional Services Agreement (PSA) with Yale University for the duration of this project period. The PSA will fund Dr. Pollitt and Dr. Dong Gao (post-doctoral research fellow) at Yale to install a network of low-cost air sensors in the project communities. Drs. Pollitt and Gao will calibrate all sensors to ensure high-quality real-time measurements of PM<sub>2.5</sub> mass and ozone concentration are reported. A database of collected measurements and a public website that will visualize this air quality data will also be provided. Dr. Pollitt will dedicate 0.6 months to the project over Yr1-3 and Dr. Gao will dedicate 1.2 months in Year 1 and 0.6 months in Years 2 and 3.

<u>Method of Selection</u>: Yale has been selected for this contract because they are uniquely qualified with available staff, expertise and experience to provide the needed services based on previous projects establishing low-cost air sensor networks in Massachusetts.

<u>Schedule</u>: The funding for this project is projected for 36 months. Estimated start date for the contract is 11/1/2022.

Estimated Costs: This project will receive funding in the amount of \$75,000.

Name of Contractor: Naugatuck Valley Health District

<u>Nature of Services</u>: The NVHD will receive a sub-award to provide community outreach, implement the education program, identify monitor locations, secure permits, and approvals (if necessary) and host community forums and activities. A citizen or community member stipend will also be provided and administered by the Naugatuck Valley Health District. The stipend will compensate community members and non-profits who want to learn about the sensors and conduct neighborhood outreach.

Method of Selection: The NVHD will be selected for this contract because they are the health

department with jurisdiction over the pilot towns of Ansonia and Derby.

<u>Schedule</u>: The funding for this project is projected for 36 months. Estimated start date for the contract is 11/1/2022. <u>Estimated Costs</u>: This project will receive funding in the amount of \$97,443.

<u>G. Other Internship Program:</u> A paid internship program will be established, and Yale and UConn will provide training and personnel to assist with deploying the sensors and conduct education in conjunction with the Naugatuck Valley Heath District. The program will partner a community-based organization with university personnel and a local health official to provide community training and outreach. This project will receive funding in the amount of \$5000.

<u>Community Engagement Plan Review</u>: The Yale-Griffin Prevention Research Center will evaluate the community engagement plan and provide community specific comments and inform programmatic decisions. This project will receive funding in the amount of \$3,000.

**H. Indirect:** Indirect costs of 42% state agency rate for total of \$43,537 are assumed. A copy of the indirect cost rate agreement has been provided.

munect cost rate agreement has been provided.	
Line Item & Itemized Cost	EPA Funding
Personnel	
(.5 FTE) Environmental Analyst 2 @ \$69,106 annually x 3 yrs @ 50% effort	\$103,659
TOTAL PERSONNEL	\$103,659
Fringe Benefits	
96.18% of Salary and Wages x Total Personnel - Retirement, Health Benefits, FICA, SUI	\$99,699
TOTAL FRINGE BENEFITS	\$99,699
Travel	
Motor Vehicle Rental	\$500
Motor Vehicle Fuel	\$300
TOTAL TRAVEL	\$800
Equipment	
N/A	\$0
TOTAL EQUIPMENT	\$0
Supplies	
Air Sensor @ Qty-36 x \$265/each	\$9,540
Air Sensor + WiFi @ Qty-36 x \$645/each	\$23,220
Air Quality Flags @ Qty-5 x \$100/each set	\$500
Weather Station @ Qty 5 x \$180/each	\$900
TOTAL SUPPLIES	\$34,160
Contractual	
Subcontract- UConn	\$35,202
Subcontract-Yale	\$75,000
Subcontract- Naugatuck Valley Health District	\$97,443
TOTAL CONTRACTUAL	\$207,645
Other	
IT hosting- website application	\$2,500
Internship Program	\$5,000
Community Engagement Plan Review	\$3,000
TOTAL OTHER	\$10,500
Indirect Charges	
Federal Indirect Cost Rate x Personnel = Indirect Costs	\$43,537
(Federal Negotiated Indirect Cost Rate = 42%)	
TOTAL INDIRECT	\$43,537
TOTAL FUNDING	\$500,000
TOTAL PROJECT COST	\$500,000

# **BUDGET INFORMATION - Non-Construction Programs**

OMB Number: 4040-0006 Expiration Date: 02/28/2022

#### **SECTION A - BUDGET SUMMARY**

Grant Program Function or	Catalog of Federal Domestic Assistance	Estimated Unobligated Funds					
Activity (a)	Number (b)	Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)	
1. Enhanced Air Quality Monitoring for Communities		\$	\$	\$ 500,000.00		\$ 500,000.00	
2.							
3.							
4.							
5. Totals		\$	\$	\$ 500,000.00	\$	\$ 500,000.00	

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## **SECTION B - BUDGET CATEGORIES**

6. Object Class Categories		GRANT F	PROGRAM, FUNCTION OR	ACTIVITY	Total
	Enhanced Air Quadonitoring for Communities	(2)		(4)	(5)
a. Personnel	\$ 103,6	59.00 \$	\$	\$	\$ 103,659.00
b. Fringe Benefits	99,6	99.00			99,699.00
c. Travel	8	00.00			800.00
d. Equipment		0.00			0.00
e. Supplies	34,1	60.00			34,160.00
f. Contractual	207,6	45.00			207,645.00
g. Construction		0.00			0.00
h. Other	10,5	00.00			10,500.00
i. Total Direct Charges (sum of 6a-6h)	456,4	63.00			\$ 456,463.00
j. Indirect Charges	43,5	37.00			\$ 43,537.00
k. TOTALS (sum of 6i and 6j)	\$ 500,0	\$	\$	\$	\$ 500,000.00
7. Program Income	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES									
(a) Grant Program			(b) Applicant		(c) State	(d) Other Sources		(e)TOTALS	
8. Enhanced Air Quality Monitoring for Communit	ies	\$		\$		\$		\$	
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9.									
								_	
10.						1		Г	
			L		<b>L</b>				
11.								l	
						1			
12. TOTAL (sum of lines 8-11)		\$		\$		\$		\$	
		D -	FORECASTED CASH	NE				T	
	Total for 1st Year	1	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter
13. Federal	\$ 500,000.00	\$	125,000.00	\$	125,000.00	\$	125,000.00	\$	125,000.00
14. Non-Federal	\$	_				L			
15. TOTAL (sum of lines 13 and 14)	\$ 500,000.00	\$	125,000.00	\$	125,000.00	\$	125,000.00	\$	125,000.00
SECTION E - BUD	GET ESTIMATES OF FE	DE	RAL FUNDS NEEDED	FO	R BALANCE OF THE	PR	OJECT		
(a) Grant Program		_		т-	FUTURE FUNDING	PE		T	
		1-	(b)First	+-	(c) Second	1 6	(d) Third		(e) Fourth
16. Enhanced Air Quality Monitoring for Communit	ies	\$		\$		\$[		\$	
47		<u>  </u> 		+		1 .			
17.						l  L			
40		<u>                                     </u>		+	Г	1 6			
18.						l  L			
10		1		+-		1 [			
19.						l L			
20. TOTAL (sum of lines 16 - 19)				\$		\$		\$	
20. TOTAL (sum of lines 16 - 19)									
21. Direct Charges: 22. Indirect Charges:									
23. Remarks:									

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## Section 5 - Quality Assurance Statement

The Yale team, led by Dr. Krystal Pollitt, will implement quality control measures to ensure a high standard of data quality. Her team will be responsible for all aspects related to quality assurance and quality control of data acquired through this project. Data will be in the form of fine particulate matter ( $PM_{2.5}$ ) mass concentration and ozone ( $O_3$ ) concentrations measured by the <u>Tetrad AirU</u>. Accuracy and precision will be evaluated against the regulatory instruments. To examine regional and seasonal variation in low-cost air sensor measurements, calibration factors will be developed for individual sensors.

#### Low-Cost Air Sensor Calibration and Maintenance

The quality of the low-cost air sensor data remains uncertain, and performance may be impacted by both the air pollutant mixture and concentration levels, as well as the environmental conditions (e.g., relative humidity, temperature, wind). The proposed air monitoring network in Derby and Ansonia, CT will include 'field' low-cost air sensors installed at community sites as well as a 'master' low-cost air sensor that will be placed for the duration of the proposed project at EPA monitoring stations (New Haven, CT) where reference PM<sub>2.5</sub> and O<sub>3</sub> monitors are operated. The New Haven, CT was selected given the proximity to the proposed pilot communities (~10 miles). A three-phase calibration protocol will be conducted for all low-cost air sensors included in proposed air monitoring network (pre-deployment, infield, and long-term) to develop calibration factors to improve data quality.

As part of the *pre-deployment* calibration, 'field' low-cost air sensors will be placed for a minimum of two weeks at the EPA monitoring station with the 'master' low-cost air sensor. This pre-deployment calibration will serve to evaluate 'field' sensor operation and development of pre-deployment  $PM_{2.5}$  mass and  $O_3$  calibration factors for each 'field' sensors. Unique calibration factors will be applied to each 'field' low-cost air sensor based on the relationship identified with parallel 2-minute resolution measurements from the 'master' low-cost air sensor and the regulatory grade reference air monitors operated at the EPA monitoring stations.

Once 'field' sensors are installed at community sites, the operating status of these sensors will be continuously monitored in real-time through a Sensor Health Dashboard (See Data Acquisition and Management Section). We will conduct *in-field calibration*, continuously comparing the neighbouring low-cost air sensors. Calibration models will be developed using past two week of collected measurements across the sensor network and applied calibration factors will be adjusted in real-time to the individual low-cost air sensors.

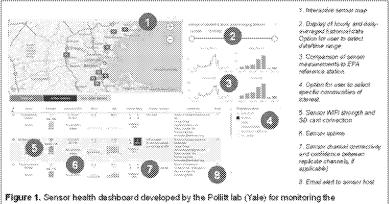
Due to low-cost air sensor drift over time and changes in the target environments, periodic *long-term* calibration is crucial to maintain consistency among distributed sensors and ensure data quality over periods of extended low-cost air sensor use. To rigorously evaluate measurement precision and bias, one third of 'field' low-cost air sensors will be collected annual and collocated at an EPA monitoring station together with regulatory grade reference air monitors and 'master' sensors for up to two weeks. Following this collocation, sensors will be return to the community monitoring locations. Sensors with obvious seasonal drift are prioritized for calibration. The remaining sensor locations will be selected using the pollution contour map as guide. Sensors that monitor similar pollution levels and have similar land use characteristics will be grouped together. Within each group, the sensors will be further chosen based on the ease for low-cost air sensor collection. Following protocols like the predeployment calibration, updated calibration factors will be determined for each 'field' sensor.

Low-cost air sensor maintenance will be performed at a minimum annually and will include cleaning internal surfaces to prevent the build-up of insects or dust, replacing degraded sensing elements, and examining site features to ensure that no significant changes to the landscape have occurred.

## **Data Acquisition and Management**

The Tetrad low-cost air sensor will be connected to the Internet through local WIFI networks at their installed locations. Sensor data will be acquired through application programming

interfaces (APIs) provided by Tetrad and then stored by the Yale team in a cloudbased centralized database platform. Acquired data will be accessed by our project team using a Sensor Health Dashboard (see Figure 1). This interactive dashboard was built by Dr. Pollitt's team will be used to monitor the low-cost air sensor connectivity (WIFI strength)



performance of low-cost air sensors

performance (data capture rate and quality). This dashboard will automatically alert the Yale team and community members hosting an air sensor if their sensor goes offline and is not reporting air quality levels to the proposed air monitoring network. The sensor health dashboard further includes a data processing tool that will be used to automate measurement cleaning and calibration. Cleaned and calibrated PM<sub>2.5</sub> mass and ozone concentrations will be shared on our publicly accessible air network website. All acquired data will be reviewed and downloaded to a local desktop computer by Dr. Pollitt's team for manual review

## **Quality Control**

The Tetrad low-cost air sensor uses a Plantower PMS PM sensor to measure PM2.5 mass concentration and a metal oxide sensor as a proxy for ozone concentrations. Data reported by low-cost sensor channels will be reviewed on a weekly basis to identify data quality issues. Sensor data will be flagged following review on the Sensor Health Dashboard for several quality criteria, including data completeness, departure from a typical range of values or daily variation, and correlation with nearby sensors. Temperature and humidity information will be evaluated only to determine if the readings display seasonal variation.

## Air Monitoring Network Website

To increase our understanding of air quality in higher risk communities in the pilot communities of Derby and Ansonia, CT, calibrated and cleaned PM<sub>2.5</sub> and O<sub>3</sub> measurements acquired by low-cost air sensors of will be shared on a publicly accessible website. This website will include an interactive map displaying air quality levels from the network's 72 low-cost air sensors. An example of this platform is shown in Figure 2 based on our team's exisiting Pioneer Valley Healthy Air Network in Western Massachusetts. The proposed network website will include communities access to real-time and historic PM<sub>2.5</sub> and O<sub>3</sub> concentrations for individual monitoring locations. Together this information, we will provide the air quality index (AQI). The AQI and activity guidance will be shown for the criteria air pollutant with the highest levels. Meteorological data (wind, temperature, humidity) and pollen levels will also be shown and acquired from NOAA. In addition to presenting information for individual monitoring locations, the interactive map will include a spatial model of current PM<sub>2.5</sub> and O<sub>3</sub> levels for the entire

state. Our website include sensor for the two pilot communities for which low-cost air sensors will be calibrated through the proposed project. Our platform has been built to be scalable and include additional air sensors as well as other available online environmental sensors such as heat.

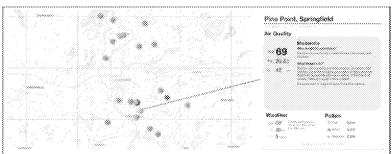


Figure 2. Proposed air monitoring network map visualizing calibrated PM<sub>1.6</sub> mass and O<sub>1</sub> concentrations measured by low-cost air sensors shown together with air quality index (AQI) and activity guidance. This map will be displayed on our publicly assessable website.



March 17, 2022

Heather Aaron MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Re: Letter of Support for "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources" application

Dear Deputy Commissioner Aaron;

The Connecticut Association of Directors of Health (CADH) is pleased to offer its support to the Department of Public Health's (DPH's) grant application for the 2022 Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities titled "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." This EPA funding opportunity provides critical funding for ambient air monitoring disadvantaged communities affected by air pollution and the COVID-19 pandemic. The placement of air monitoring systems in Derby and Ansonia where there is an absence of monitoring infrastructure is a vital first step to improving the health of these municipalities. As these communities emerge from this pandemic and work to recover economically and socially, offer important data and resources to support a cleaner, and safer environment.

Securing grant funds is critical to allow the DPH and its partners to further their work related to climate adaptation and resiliency recommendations that will benefit the entire state. CADH supports the DPH in securing EPA air quality monitoring funding to allow the DPH, in conjunction with its partners, the ability to further implement public health focused climate change strategies with a focus on particulate matter and ozone and to pursue the development and implementation of an educational toolkit for communities to reduce exposure to high particulate matter and ozone events. Further, the development of toolkit materials and deployment of local strategies that can be adopted to other parts of the state and be used as models to improve the air quality in communities across Connecticut and is supported by CADH. By supporting local implementation of heat, ozone and air quality plans, DPH will build on local resiliency efforts for the most vulnerable populations in Connecticut.

Thank you for the opportunity to express our support for DPH's EPA Enhanced Air Quality Monitoring application for funding. We look forward to continuing our successful and productive work together.

NY CA A

Sincerely,

rent C. Joseph, President of CADH

cc: CADH Board of Directors
Lori Mathieu, EHDW Branch Chief
Jim Vannoy, Environmental Health Section Chief

The Connecticut Association of Directors of Health (CADH) is a nonprofit organization comprised of the Directors of Connecticut's local health departments and districts. Local health directors are the statutory agents of the Commissioner of Public Health and are critical providers of essential public health services at the local level in Connecticut.



March 14, 2022

Heather Aaron MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Dear Deputy Commissioner Aaron;

The CT Environmental Health Association (CEHA) is pleased to provide this letter of support for the Connecticut Department of Public Health's (DPH's) proposed project, submitted in response to the 2022 Environmental Protection Agency (EPA) notice of funding opportunity, ") Enhanced Air Quality Monitoring for Communities" (EPA-OAR-OAQPS-22-01).

CEHA shares DPH's concern that climate change and air pollution are impacting the health and well-being of Connecticut residents. We agree that securing grant funds is critical to enable DPH and its partners to fully characterize and address these risks to human health. The placement of air monitoring systems in Derby and Ansonia where there is an absence of monitoring infrastructure is a vital first step to improving the health of these municipalities. As these communities emerge from the pandemic, and work to recover economically and socially, this funding will provide important data and resources to support a cleaner, and safer environment. Further, the development of toolkit materials and deployment of local strategies that can be adopted by other parts of the state and used as models to improve the air quality in communities across Connecticut is vigorously supported by CEHA.

Thank you for the opportunity to express our support for DPH's application, "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." We look forward to continuing our successful and productive work together.

Respectfully,

Christopher Buter. MPH, REHS/RS President, CEHA Lead Sanitarian. East Shore District Health Department. 688 E. Main Street. Branford, CT-06405 Phone- (203)-481-4233

cc: Lori Mathieu, EHDW Branch Chief Jim Vannoy, Environmental Health Section Chief



Kristina M. Wagstrom, Ph.D. Associate Professor kristina.wagstrom@uconn.edu (860) 486-1715

March 9, 2022

Heather Aaron MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Re: Letter of Support for "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources" application

Dear Deputy Commissioner Aaron;

I am pleased to offer my support as partner in the Department of Public Health's (DPH's) grant application in response to the Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities 2022 notice of funding opportunity (EPA-OAR-OAQPS-22-01).

This opportunity is directly related to my ongoing work on two different project funded by the National Science Foundation (CAREER: Engaging Communities to Bridge the Local to Regional Gap in Air Pollution Exposure Assessment and Resolving Source Contributions to Atmospheric Deposition). The first project focuses on working with community members as we develop new approaches to estimate local-scale air pollution concentrations for use in exposure assessment. The second project focuses on determining the major air pollution sources contributing to nitrogen deposition and includes monitoring and education efforts across the state. The work proposed here builds on work my lab recently completed with the Connecticut Department of Energy and Environmental Protection to identify major air pollution sources contributing to ozone throughout the state, particularly during periods of elevated ozone.

I am committed to offer my expertise in air pollution mapping, evaluation, and planning to work with the DPH and its partners for the successful implementation of this project. If awarded, I aid in the expansion of the educational program to include stationary air pollution monitoring as part of training and monitoring of air pollution exposure at schools; evaluate and monitor data retrieved from outdoor air quality and heat sensors to supplement school educational and training efforts and inform local heat response plans. To do so I will collaborate with Dr. Mariana Fragomeni (Assistant Professor in Plant Science and Landscape Architecture) and Dr. Joanna Wosniak Brown (CIRCA) at the University of Connecticut to deploy, retrieve, and analyze the combined impacts of heat and impaired air quality and incorporate metrics of social vulnerability.

School of Engineering
Department of Chemical &
Biomolecular Engineering
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STORRS, CT 06269-3222
Phone: 860.486.4020
Fax: 860.486.2959
www.cbe.engr.uconn.edu

An Equal Opportunity Employer



Kristina M. Wagstrom, Ph.D. Associate Professor kristina.wagstrom@uconn.edu (860) 486-1715

Thank you for the opportunity to express my support of the activities proposed and my commitment to partner in the EPA application for funding. I look forward to continuing our successful and productive work together.

Sincerely,

\*\*Mistrice Wagther

\*\*The Company of the Company of th

Kristina M. Wagstrom

c: Lori Mathieu, EHDW Branch Chief Jim Vannoy, Environmental Health Section Chief

School of Engineering
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Biomolecular Engineering
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March 16, 2022

Heather Aaron MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Re: Letter of Support for "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources" application

Dear Deputy Commissioner Aaron;

As the Co-Director of the Yale-Griffin Prevention Research Center (PRC), I'm pleased to offer our support as a partner in the Department of Public Health's (DPH's) grant application in response to the Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities 2022 notice of funding opportunity (EPA-OAR-OAQPS-22-01).

As part of the CDC's <u>Prevention Research Centers network</u> of 26 academic-community research centers across the United States we work with community partners to develop, implement, and evaluate community-based approaches to help prevent and control chronic diseases. Our PRC was established in 1998 and we have an extensive history of community engaged research with our partners in the Lower Naugatuck Valley. Of particular benefit to this project, our Center is co-house at the Yale School of Public Health and within our community partner, Griffin Hospital. Griffin Hospital is a community hospital which serves the target towns for this project, Ansonia and Derby, as well as the entire Lower Naugatuck Valley. As part of our collaboration on this project, I will participate on the project's working group, and our established Community Advisory Group will be engaged in the development and execution of the community engagement plan. As such, we'll participate in various community events, such as the annual Earth Day activities, to further promote the project to community members.

Our shared goals, experience and location puts us in an important position to support this project, which takes a preventative approach to chronic diseases like Asthma. We are also located in one of the parts of Connecticut that has been hit hardest by the COVID-19 pandemic in deaths and job losses and Ansonia continues to have the highest unemployment statistics in the state. This funding opportunity has the potential to offer vital funding at a time that it is particularly important with these communities suffering the effects of both air pollution and the pandemic.

We are pleased to partner with the Connecticut Department of Public Health in support of this application for funding and look forward to the opportunity to work together.

Sincerely,

Beth P. Comerford MS

Co-Director

cc: Lori Mathieu, EHDW Branch Chief

Jim Vannoy, Environmental Health Section Chief

130 Division Street, Derby, CT 06418 : 135 College Street, Suite 200, New Haven, CT 06510



STATE CAPITOL HARTFORD, CONNECTICUT 06106-1591

March 17, 2022

Heather Aaron MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Dear Deputy Commissioner Aaron:

We are pleased to offer support to the Department of Public Health's (DPH's) grant application for the 2022 Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities titled "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." This EPA funding opportunity provides critical funding for ambient air monitoring for disadvantaged communities affected by air pollution and the COVID-19 pandemic. The placement of air monitoring systems in Derby and Ansonia --here there is an absence of monitoring infrastructure--is a vital first step to improving the health of these municipalities. It is important to note that Ansonia and Derby are the third and fifth most economically distressed municipalities in the state, per the Department of Economic and Community Development's annual report. Further, both communities have elevated poverty rates, A.L.I.C.E. rates that hover near 50%, elevated asthma rates, elevated diabetes and heart disease rates, and lower than average life expectancies. Their Social Vulnerability Index scores are high, as were infection rates and economic fallout throughout the pandemic. As these communities emerge from this pandemic and work to recover economically and socially, this grant has the opportunity to offer important data and resources to support a cleaner, and safer environment.

Securing grant funds is critical to allow the DPH, Naugatuck Valley Health District, and its additional partners to further their work related to climate adaptation and resiliency recommendations that will benefit the entire state. We support the DPH in securing EPA air quality monitoring funding to allow the DPH, in conjunction with its partners, the ability to further implement public health focused climate change strategies with a focus on particulate matter and ozone and to pursue the development and implementation of an educational toolkit for communities to reduce exposure to high particulate matter and ozone events. Further, the development of toolkit materials and deployment of local strategies that can be adopted to other parts of the state can be used as models to improve the air quality in communities across Connecticut. This has the potential to be a great accomplishment for our Valley community. By supporting local implementation of heat, ozone and air quality plans, DPH will build on local resiliency efforts for the most vulnerable populations in Connecticut, and specifically our constituents in Ansonia and Derby.

Thank you for the opportunity to express our support for DPH's EPA Enhanced Air Quality Monitoring application for funding. We look forward to continuing our successful and productive work together.

Sincerely,

Kara Rochelle Mary Welander Nicole Klarides-Ditria Jorge Cabrera
104th House District 114th House District 105th House District 17th Senate Dis





www.teaminc.org

Heather Aaron MPH, LNHA – Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134 March 17, 2022

Dear Deputy Commissioner Aaron;

TEAM enthusiastically supports the Connecticut Department of Public Health's (DPH's) proposed project, submitted in response to the 2022 Environmental Protection Agency (EPA) notice of funding opportunity, "Enhanced Air Quality Monitoring for Communities" (EPA-OAR-OAQPS-22-01).

TEAM is a private, not-for-profit, anti-poverty human services agency connecting with more than 15,000 individuals throughout the Greater Naugatuck Valley and surrounding region in the last year alone. TEAM's commitment is to the economically disadvantaged and vulnerable at-risk people in our region, and TEAM's footprint in the community spans Early Childhood & Head Start, Basic Needs & Case Management Services, Elderly Services & Meals on Wheels, Employment & Training Supports, Housing Supports, and more. TEAM serves the communities of Ansonia, Beacon Falls, Bethany, Derby, Milford, Orange, Oxford, Seymour, Shelton and Woodbridge. We also provide Early Childhood & Head Start services in Naugatuck and Waterbury.

As a leader in our communities that is funded by the U.S. Department of Health & Human Services that include TEAM's Head Start Health Services Advisory Council, TEAM shares DPH's concern that climate change and air pollution is impacting the health and well-being of Connecticut residents. We agree that securing grant funds is critical for enabling DPH and its partners to fully characterize and address these risks to human health. The placement of air monitoring systems in Derby and Ansonia where there is an absence of monitoring infrastructure is a vital first step to improving the health of these municipalities. As these vulnerable communities emerge from this pandemic and work to recover economically and socially, this funding will provide important data and resources to support a cleaner, and safer environment. Further, TEAM recognizes and supports the development of toolkit materials and deployment of local strategies that can be adopted to other parts of the state and be used as models to improve the air quality in communities across Connecticut. TEAM supports Naugatuck Valley Health District with these efforts and will promote this initiative as events occur throughout the towns.

Thank you for your consideration and support of DPH's application "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." We look forward to continuing our successful and productive work together – please don't hesitate to contact me anytime for further information regarding this high-impact and meaningful DPH project.

Respectfully,

David Morgan, President/CEO – TEAM Inc 203-751-8680 / dmorgan@teaminc.org



Heather Aaron MPH, LNHA – Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

March 17, 2022

Dear Deputy Commissioner Aaron;

The Valley Council for Health & Human Services enthusiastically supports the Connecticut Department of Public Health's (DPH's) proposed project, submitted in response to the 2022 Environmental Protection Agency (EPA) notice of funding opportunity, "Enhanced Air Quality Monitoring for Communities" (EPA-OAR-OAQPS-22-01).

The Valley Council for Health & Human Services and its members are key community partners in connecting with and helping thousands of underserved individuals in the region – collectively, we strategically respond to local needs assessment data and trends that are impacting the overall quality of life, and our collective work includes rigorous attention to health & wellness indicators and trends especially amidst our most vulnerable populations.

The Valley Council HHS shares DPH's concern that climate change and air pollution is impacting the health and well-being of Connecticut residents. We agree that securing grant funds is critical for enabling DPH and its partners to fully characterize and address these risks to human health. The placement of air monitoring systems in Derby and Ansonia (two of the Valley Council's most distressed communities) where there is an absence of monitoring infrastructure is a vital first step to improving the health of these municipalities. As these vulnerable communities emerge from this pandemic and work to recover economically and socially, this funding will provide important data and resources to support a cleaner, and safer environment. Further, the Valley Council HHS recognizes and supports the development of toolkit materials and deployment of local strategies that can be adopted to other parts of the state and be used as models to improve the air quality in communities across Connecticut. The Valley Council for Health & Human Services supports Naugatuck Valley Health District as an integral partner with these efforts and will promote this initiative as events occur throughout the towns.

Thank you for your consideration and support of DPH's application "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." We look forward to continuing our successful and productive work together – please don't hesitate to contact me anytime for further information regarding this high-impact and meaningful DPH project.

Respectfully.

David Morgan - President/Chair, Valley Council for Health & Human Services

www.valleycouncil.org

# Yale school of public health

Department of Environmental Health Sciences

March 17, 2022

Heather Aaron, MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Dear Deputy Commissioner Aaron,

I am pleased to provide this letter of commitment as an implementation partner for the Connecticut Department of Public Health's (DPH's) proposed project, submitted in response to the 2022 Environmental Protection Agency (EPA) notice of funding opportunity, "Enhanced Air Quality Monitoring for Communities" (EPA-OAR-OAQPS-22-01).

I am an Assistant Professor in the Department of Environmental Health Sciences at the Yale School of Public Health and hold a cross-appointment in the Department of Chemical and Environmental Engineering. My PhD explored the impact of short-term air pollutant exposure on cardiorespiratory health as part a collaborative project with King's College London, University of Birmingham, Utrecht University and the Dutch National Institute for Public Health and the Environment. I was subsequently awarded a Canadian Thoracic Society Postdoctoral Research Fellowship focused on characterizing personal exposure to complex environmental exposures and their impact on respiratory health. My current research combines my interests and expertise in exposure science and analytical chemistry and aims to understand the health effects of indoor and outdoor pollutants using novel sensor technology. This application expands on my experience establishing air monitoring networks using low-cost sensors in Massachusetts created with the objective of building community capacity, leadership and collaboration on air quality, climate resilience, environmental justice, and health equity.

I share DPH's concern that climate change is impacting the health and well-being of Connecticut residents, that impacts will expand in the future, and that these impacts are distributed inequitably across the population. Securing grant funding is critical for enabling DPH and its partners to fully characterize and address these risks to human health.

As a project partner, I commit to participate in the following activities over the three-year project period:

- Install, calibrate, and maintain a network of low-cost air sensors in Derby and Ansonia, CT;
- Maintain a website of data from air sensors to share real-time information with our communities;
- Participate in partner team meetings;

#### KRYSTAL POLLITT, PH.D., P.ENG.

Assistant Professor

PO Box 20834 New Haven CT 06520-8034 T 203 737-1444 F 203 737-6023 krystal.pollit@yale.edu publichealth.yale.edu

courier
Environmental Health Sciences
LEPH
Room 444
New Haven CT 06520



- Publicize these efforts through social media and my networks;
- Participate in organizing and outreach to residents of the Derby and Ansonia, CT; and
- Provide education for residents and stakeholders on air quality data.

Thank you for the opportunity to express both my support for DPH's application "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." and my commitment to partnership on the proposed program implementation to achieve the stated goals. I look forward to continuing our successful and productive work together.

Sincerely,

Krystal Pollitt, Ph.D., P.Eng.

& Polith

**Assistant Professor** 

Yale School of Public Health

Yale School of Engineering and Applied Science

79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

March 25, 2022

Heather Aaron MPH, LNHA Deputy Commissioner Connecticut Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Re: Letter of Support for "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources" application

Dear Deputy Commissioner Aaron,

The Department of Energy and Environmental Protection (DEEP) is pleased to offer its support as a partner in the Department of Public Health's (DPH's) grant application for the 2022 Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities titled "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." This EPA funding opportunity provides critical funding for ambient air monitoring within disadvantaged communities affected by air pollution and the COVID-19 pandemic. The placement of air monitoring systems in Derby and Ansonia where there is an absence of monitoring infrastructure is a vital first step to improving the health of these municipalities. As these communities emerge from this pandemic and work to recover economically and socially, this proposal will offer important data and provide resources to support a broader roll out of community-based monitoring throughout other overburdened communities in accordance with efforts specified under Governor Lamont's Executive Order No. 21-3.

As a project partner in this grant proposal, DEEP commits to participate in the following activities:

- Provide technical expertise and overall project guidance on small sensor air quality
  monitoring instrumentation, including co-location at DEEP's reference grade monitors prior
  to small sensor deployment, and data analysis/comparison to DEEP's reference grade data
  sets.
- 2. Participate in public forums and community information meetings.
- 3. Provide at least ten Purple Air Sensors to be deployed as part of the project to serve as a colocated monitors to evaluate this alternative technology for community-based monitoring.
- 4. Look for opportunities to incorporate an education and outreach program within school systems hosting the air quality sensors with teacher training focused on the integration of a community-based air quality monitoring component within the curriculum for participating school districts utilizing EPA's Air Quality Flag Program.

Securing grant funds is critical to allow the DPH and its partners to further their work related to climate adaptation and resiliency recommendations that will benefit the entire state. DEEP supports the DPH in securing EPA air quality monitoring funding to allow the DPH, in conjunction with its partners, to further implement public health focused climate change strategies with a focus on fine particulate matter and ozone and to pursue the development and implementation of an educational toolbox for communities to reduce exposure to high fine particulate matter and ozone events. Further, the development of toolbox materials and deployment of local strategies can be adopted in other parts of the state and be used as models to improve the response to impaired air quality events in communities across Connecticut. By supporting local implementation of heat, ozone and air quality plans, DPH will build on local resiliency efforts for the most vulnerable populations in Connecticut.

DEEP is pleased to partner in this project and leverage the resources of a recently formed regional workgroup through the Transportation Climate Initiative (TCI) focused on community-based air quality monitoring. Facilitated by the Georgetown Climate Center, workgroup participants include agency officials from Connecticut, District of Columbia, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island and Vermont. The primary focus of this workgroup is to establish a new "community of practice," which will become a regional forum for sharing information and helping to build capacity within agencies and communities to develop and maintain community-based air quality monitoring programs. Connecticut currently serves as the co-chair of this workgroup, and we are happy to leverage support for this project with our partners throughout the region.

Thank you for the opportunity to express both my support for DPH's application "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." and DEEP's commitment to partnership on the proposed program implementation to achieve the stated goals. We look forward to continuing our successful and productive work together.

Sincerely,

Katie S. Dykes Commissioner

c: Lori Mathieu, DPH EHDW Branch Chief Tracy Babbidge, DEEP Air Bureau Chief Jim Vannoy, DPH Environmental Health Section Chief



Heather Aaron MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Dear Deputy Commissioner Aaron;

Tetrad Sensor Network Solutions, LLC is pleased to provide this letter of commitment as an implementation partner for the Connecticut Department of Public Health's (DPH's) proposed project, submitted in response to the 2022 Environmental Protection Agency (EPA) notice of funding opportunity, ") Enhanced Air Quality Monitoring for Communities" (EPA-OAR-OAQPS-22-01).

Tetrad Network Sensor Solutions, LLC shares DPH's concern that climate change is impacting the health and well-being of Connecticut residents, that impacts will expand in the future, and that these impacts are distributed inequitably across the population. We agree that securing grant funds is critical for enabling DPH and its partners to fully characterize and address these risks to human health.

As a partner, we will be providing 72 AirU air sensors to measure outdoor levels of PM<sub>2.5</sub> mass and ozone concentrations for installation at project sites in Derby and Ansonia, CT. We will further provide data access and integrated air quality visualizations.

Thank you for the opportunity to express both our support for DPH's application "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources." and our commitment to partnership on the proposed program implementation to achieve the stated goals. We look forward to continuing our successful and productive work together.

Respectfully,

Carl Luft

carl.luft@tetradsensors.com

Tetrad Network Sensor Solutions, LLC

cc: Lori Mathieu, EHDW Branch Chief Jim Vannoy, Environmental Health Section Chief



## Naugatuck Valley Health District

98 Bank Street Seymour, CT 06483 T: 203-881-3255 F: 203-881-3259 W: www.nvhd.org

March 16, 2022

Heather Aaron MPH, LNHA Deputy Commissioner CT Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Re: Letter of Support for "Partnering with distressed Connecticut communities to develop health-relevant air monitoring resources" application

Dear Deputy Commissioner Aaron;

The Naugatuck Valley Health District is excited offer it's support as partner in the Department of Public Health's (DPH's) grant application in response to the Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities 2022 notice of funding opportunity (EPA-OAR-OAQPS-22-01).

Both Derby and Ansonia are in the Naugatuck Valley Health District (NVHD). Neither Derby nor Ansonia have air monitoring systems in place. This funding would allow for basic monitoring infrastructure as well for funds to help us engage and educate these communities about the importance air monitoring and how air pollution and are contributing to our elevated rates of Asthma and harming the overall health of our community.

We plan to work closely with DPH, the CT Department of Engergy and Environmental Protection (DEEP), and other project partners and offer our support for the success of this project for enhanced air quality monitoring and to facilitate outreach within our community. Thank you for your consideration and the opportunity to express our support for the proposed activities that are much needed in our area.

NVHD's Environmental Health Services and Community Health Services Divisions will participate in the development and sustainability of this project. We will be organizing community activities and public health events, including the Earth Day program kickoff. Our staff will assist in developing the community engagement plan for this project and secure any permits or approvals for monitor locations. We will also be working with local education leaders to develop assist with curriculum and air monitoring flag program within our schools. We will pilot the educational toolkit and make community-based assessments.

As a nationally accredited local health district, we are always seeking new opportunities to expand our services and align them with the 10 Essential Services of Public Health. The outcomes of this project also directly align with our Valley community health assessment findings and our Community Health Improvement Plan priority work. I have confidence that this project will be successful and that other communities, here in the Valley and across the state, will adopt and use our model. We are grateful for this opportunity and happy to be involved as your local public health partner.

Jessica Kristy, MPH

Director of Health

cc: Lori Mathieu, EHDW Branch Chief
Jim Vannoy, Environmental Health Section Chief

Ansonia

Beacon Falls

Derby



Naugatuck

Seymour 0

Shelton

OMB Number: 2030-0020 Expiration Date: 06/30/2024

# Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

. A.	Applicant	/Recipient (Name, Address, City, State, Zip Code)						
	Name:	State of Connecticut, Department of Public Health						
	Address:	410 Capitol Avenue						
	O:h							
	City:	Hartford						
	State:	CT: Connecticut  Zip Code: 06134						
В	Unique E	ntity Identifier (UEI): RFZKKT5RU3F8						
	Name:	Chukwuma Amechi						
	Phone:	(860) 509-7233						
	Email:	chukwuma.amechi@ct.gov						
	Title:	Section Chief (TSHC)						
<b>.</b>	Is the ap	plicant currently receiving EPA Assistance? X Yes No						
1000 1000 1000 1000	discrimir	List all pending civil rights lawsuits and administrative complaints filed under federal law against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)						
16A  IV.	List all c	1-2015-00840; (2) CHRO case no. 2010494/EEOC no. 16A-2020-01019; and (3) CHRO case no. 2110301/EEOC consists and administrative complaints decided against the applicant/recipient within the last year that alleged nation based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all e actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)						
Non	e							
v.	within th	ivil rights compliance reviews of the applicant/recipient conducted under federal nondiscrimination laws by any federal agency e last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please any corrective action taken. (40 C.F.R. § 7.80(c)(3))						
Wom	en, Infar	compliance review of the CT Dept. of Public Health's Special Supplemental Nutrition Program for ots, and Children (WIC) by the U.S. Dept. of Agriculture, Food and Nutrition Service, Civil Rights (PR). See attached: Voluntary Resolution Agreement (With addenda) and CDR review closure letter.						
VI.	Is the app	olicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.						
a		nt is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily le to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).						
		Yes No						
t		nt is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable ns with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.						
N	ot appli	cable						

VII.		and continuing notice that it does not discriminate on the basis isability in its program or activities? (40 C.F.R 5.140 and 7.95)	X Yes	No No
a.	Do the methods of notice accommodate the	ese with impaired vision or hearing?	X Yes	No
b.		the applicant's/recipient's website, in the offices or facilities appropriate periodicals and other written communications?	X Yes	No No
c.	Does the notice identify a designated civil r	ights coordinator?	X Yes	No
VIII.	Does the applicant/recipient maintain demo disability status of the population it serves?	graphic data on the race, color, national origin, sex, age, or (40 C.F.R. 7.85(a))	X Yes	No No
IX.		rocedure for providing meaningful access to services for Title VI, 40 C.F.R. Part 7, <i>Lau v Nichols</i> 414 U.S. (1974))	X Yes	No No
Х.		activity, or has 15 or more employees, has it designated an emp rovide the name, title, position, mailing address, e-mail address		
		nt Opportunity Manager, CT Dept. of Public Health, erson@ct.gov; fax: 860-509-7111; phone: 860-509-72		Avenue,
XI.		activity, or has 15 or more employees, has it adopted grievance at allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal of, the procedures.		
Yes.	See attached: DPH Discrimination	Complaint Process		
kno	•	For the Applicant/Recipient  m and all attachments thereto are true, accurate and complete. I acl inishable by fine or imprisonment or both under applicable law. I ass ulations.	•	
Α.:	Signature of Authorized Official	B. Title of Authorized Official	C. Date	
Не	ither Aaron	Deputy Commissioner	03/25/2022	
cor pro	ive reviewed the information provided by the appopulation information required by 40 C.F.R. Parts	or the U.S. Environmental Protection Agency  plicant/recipient and hereby certify that the applicant/recipient has su  s 5 and 7; that based on the information submitted, this application sa  applicant has given assurance that it will fully comply with all applica	atisfies the preaw	ard
Α.	Signature of Authorized EPA Official	B. Title of Authorized Official	C. Date	

Instructions for EPA FORM 4700-4 (Rev. 04/2021)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution, 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972, 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any State or its political subdivision, any instrumentality of a State or its political subdivision, any public or private agency, institution, organizations, or other entity, or any person to which Federal financial assistance is extended directly or through another recipient, including any successor, assignee, or transferee of a recipient, but excluding the ultimate beneficiary of the assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means: any federal agency-initiated investigation of a particular aspect of the applicant's and/or recipient's programs or activities to determine compliance with the federal non-discrimination laws. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification.

### **VOLUNTARY RESOLUTION AGREEMENT**

### BETWEEN

### UNITED STATES DEPARTMENT OF AGRICULTURE FOOD AND NUTRITION SERVICE CIVIL RIGHTS DIVISION

#### AND

### CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

This Voluntary Resolution Agreement ("Agreement") is entered into by and between the United States Department of Agriculture (USDA), Food and Nutrition Service (FNS), Civil Rights Division (CRD), and the Connecticut Department of Public Health collectively referred to as the "Parties".

### A. BACKGROUND

- 1. The United States Department of Agriculture (USDA), Food Nutrition Service (FNS), Civil Rights Division (CRD), ensures recipients of Federal financial assistance from the USDA and public entities administering FNS programs comply with applicable Federal Civil Rights laws, regulations and directives. FNS's enforcement authority is derived from Title VI of the Civil Rights Act of 1964, as amended, 42 USC 2000d et seq. (Title VI); Title IX of the Education Amendments of 1972, 20 U.S.C. 1681 et seq. (Title IX); Section 504 of the Rehabilitation Act of 1973, as amended, 29 USC § 794 (Section 504); Title II of the Americans with Disabilities Act of 1990 (ADA), as amended by the ADA Amendments Act of 2008, 42 U.S.C. § 12101 et seq. (ADAAA); the Age Discrimination Act of 1975, 42 USC § 6101 et seq. (Age Act); and all provisions required by the implementing regulations of the USDA (7 CFR Part 15).
- 2. The State Agency is an agency located in Hartford, Connecticut. The State Agency receives Federal financial assistance from the USDA FNS and is a public entity that administers an FNS program.
- 3. CRD conducted a Civil Rights compliance review of the State Agency, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), on August 3 24, 2020 (hereafter referred to as "CRD Review").
- 4. On November 4, 2020, CRD informed the State Agency about areas of concern identified during the CRD Review via the "Letter of Concerns" attached to this Agreement as "Addendum A."
- 5. On November 17, 2020, the State Agency voluntarily agreed to enter into an Agreement to resolve the areas of concern identified within Addendum A.

Initials PMS State Agency Initials RC CRD

Page 1

- 6. On March 31, 2021, to resolve the areas or concern identified within Addendum A, the State Agency voluntarily submitted a written "Corrective Action Plan" containing "Terms of Resolution," the final version of which is attached to this Agreement as "Addendum B."
- 7. The State Agency agrees to implement the Corrective Action Plan within the specific timeframes described within the Terms of Resolution to ensure compliance with applicable Federal Civil Rights laws, regulations and directives.
- 8. The State Agency's willingness to enter into this Agreement in no way constitutes an admission of any violation of Federal laws, regulations or directives and demonstrates the State Agency's ongoing commitment to upholding Civil Rights requirements.

### B. AGREEMENTS

- 1. The Parties agree that the State Agency enters into this written Agreement voluntarily and that this Agreement is a joint effort to ensure compliance with Federal Civil Rights laws.
- 2. The Parties agree that this Agreement addresses all areas of concern identified by CRD during the Review.
  - 3. The Parties agree that resolution of areas of concern is in their best interest.
- 4. The Parties agree to successfully negotiate a full, complete, and final mutual remedy for and resolution of all areas of concern.
- 5. The Parties agree to work together to address areas of concern within designated timeframes.
- 6. The Parties agree that CRD will provide appropriate technical assistance to the State Agency regarding compliance with this Agreement, as requested and as reasonably necessary.
- 7. The Parties agree that CRD will monitor the State Agency's implementation of the Corrective Action Plan to determine whether the State Agency is in compliance with the terms of the Agreement.

### C. GENERAL PROVISIONS

- 1. Entities Covered by This Agreement. The U.S. Department of Agriculture, Food and Nutrition Service, Civil Rights Division, and the Connecticut Department of Public Health.
- 2. **Effective Date and Computation of Time.** The effective date of this agreement is the last date signed by both parties (Effective Date). When the due date of a corrective action falls on a Saturday, Sunday, or a Federal holiday, the period will extend until close of business on the next business day.

Initials RC CRD

- 3. **Term of the Agreement.** This Agreement will remain in effect until such time CRD determines that the State Agency has completed all required actions and has issued a closure letter.
- 4. Failure to Comply with the Agreement. Throughout the Term of this Agreement, if at any time CRD determines that the State Agency has failed to comply with any provision of this Agreement (hereafter referred to as "Breach of this Agreement"), CRD must notify the State Agency in writing (hereinafter referred to as the "Notice of Breach"). The Notice of Breach will include a statement of the basis for CRD's determination and will allow the State Agency ten (10) calendar days to either (a) explain in writing the reason for the noncompliance and to describe the remedial actions that have been or will be taken to achieve compliance with this Agreement or (b) to dispute CRD's determination. If the State Agency does not respond to the Notice, or if, upon review of the State Agency's response, CRD determines that the State Agency has not complied with the terms of the Agreement, CRD reserves the right to terminate the Agreement and issue a Civil Rights compliance review report with findings and required corrective actions.
- 5. Effect on Other Compliance Matters. The terms of this Agreement do not apply to any other issues, investigations, reviews, or complaints of discrimination that are unrelated to the subject matter of this Agreement and that may be pending before CRD, FNS or any other federal agency, court or adjudicative body. This Agreement does not preclude CRD or FNS programs from conducting future compliance reviews of the State Agency or from conducting investigations of complaints filed against the State Agency that are received after the Effective Date of this Agreement.
- 6. **Continuing Obligations.** Nothing in this Agreement is intended to relieve the State Agency of their continuing obligation to comply with applicable Federal nondiscrimination statutes and their implementing regulations.
- 7. State Agency's Compliance with the Agreement. CRD may at any time review the State Agency's compliance with this Agreement. Throughout the term of this Agreement, the State Agency agrees to retain records required by CRD to assess the agency's compliance with the Agreement and to submit the requested documents and records upon request by CRD.
- 8. **Non-Waiver Provision.** Failure by CRD to enforce this entire Agreement or any provision thereof with respect to any deadline or any other provision shall not be construed as a waiver of CRD's right to enforce other deadlines or any provisions of this Agreement.
- 9. **Modification of Agreement.** This Agreement may be modified by mutual agreement of the Parties in writing. The State Agency may, in advance of any due date set forth in this Agreement, submit a timely written request for an extension of time to perform any required act. A "timely written request" is defined as a request in writing received by CRD at least five (5) calendar days prior to the date such an act is required to be performed.
- 10. Publication or Release of Agreement. CRD places no restrictions on the publication of the terms of this Agreement. In addition, CRD may be required to release this Agreement and all

related materials to any person upon request, consistent with the requirements of the Freedom of Information Act, 5 U.S.C. § 522, and its implementing regulation. CRD will maintain the confidentiality of all documents, files and records received from the State Agency and will not disclose their contents except where necessary in formal enforcement proceedings or where otherwise required or allowed by law.

- 11. **Authority of Signer.** The individual who signs this document is authorized to bind the State agency to this Agreement.
- 12. **Binding on Successors.** This Agreement is binding on the Agency and its successors, heirs, transferees, and assignees and will be binding on any employee that takes any act that would qualify it as the State Agency during the term of this Agreement as set forth in section D.2.
- 13. **Third Party Rights.** This Agreement only can be enforced by the Parties specified in this Agreement, their legal representatives, and assignees. This Agreement is unenforceable by third parties and cannot create third party beneficiary rights.
- 14. **Miscellaneous.** When CRD verifies that the State Agency has completed all actions contained in this Agreement, CRD will consider all matters resolved and will issue a closure letter.

### D. VOLUNTARY MEASURES

The areas of concern identified by CRD during the Review appear within the Letter of Concern attached to this Agreement as "Addendum A." The Parties voluntarily agree to the Terms of Resolution within the Corrective Action Plan attached to this Agreement as "Addendum B."

Upon execution of this Agreement, the State Agency must implement the agreed upon Corrective Action Plan. The State Agency must provide CRD with written, documented verification that each area of concern within the Corrective Action Plan has been completed no later than 14 calendar days after the due date. CRD may require midterms or other interim reports depending on the length of the time required to complete the Corrective Action Plan.

### E. <u>AUTHORIZED REPRESENTATIVES</u>

The State Agency identified the following individual as its authorized representative and contact person regarding the implementation of this Agreement and for receipt and submission of notifications and reports:

Name: Mark Keenan

State of Connecticut Department of Public Health

Address: State of Connecticut Department of Public Health

410 Capitol Avenue, MS #11 WIC Hartford, Connecticut 06134

Phone: (860) 509-7455

Email: Mark.Keenan@ct.gov

The State Agency shall promptly notify CRD of any changes in its authorized representative(s) or contact persons, or other information provided above.

### State Agency

Rosa M. Biaggi	7/28/2021	
(Signature)	(Date)	
Rosa M. Biaggi, MPH, MBA, Publ State of Connecticut Department of		
(Print Name and Title)		
ROBERTO Digitally signed by ROBERTO	FNS Civil Rights Division	
CONTRERAS CONTRERAS	September 9, 2021	
(Signature)	(Date)	
Roberto Contreras, Director Civil Rights Division		
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#### United States Department of Agriculture

Food and Nutrition Service November 4, 2020

1320 Braddock Place Alexandria, VA 22314-1649 Ms. Rosa Biaggi
State of Connecticut Department of Public Health
410 Capitol Avenue
Hartford, CT 06134

Dear Ms Biaggi:

The U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS), Civil Rights Division (CRD) has completed its Civil Rights review of the Connecticut Department of Public Health's administration of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). CRD conducted the desk review from August 3-24, 2020. The purpose of this letter is to outline CRD's concerns regarding the State agency's policies, practices and procedures and to provide the State agency with an opportunity to implement corrective action(s) through a Voluntary Resolution Agreement (VRA).

### BACKGROUND

CRD initiated this Civil Rights review as part of a periodic and recurring review of recipients of Federal financial assistance from the USDA and of public entities administering FNS programs. The review involved a comprehensive analysis of the State agency's compliance with Federal Civil Rights statutes, regulations and directives. In addition to interviews with the State agency's state-level WIC Program staff, CRD met with representatives from State agency mission areas providing support as well as WIC Provider interviews with representatives from the *Optimus Health Care Inc.* and Danbury WIC agencies.

Based on our review, CRD determined that several of the State agency's policies, practices, and procedures are inconsistent with Federal statutes, regulations and/or USDA directives and guidance regarding nondiscrimination in Child Nutrition Programs. The enclosed Areas of Concern outline the results of CRD's Civil Rights review.

### LEGAL AUTHORITY

FNS's investigatory and enforcement authority is derived from *Title VI of the Civil Rights Act of 1964, as amended, 42 USC 2000d ("Title VI"), Section 504 of the Rehabilitation Act of 1973, as amended, 29 USC § 794 (Section 504), Title II of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 et seq. (ADA), as amended by the ADA Amendments Act of 2008 (P.L. 110–325, 122 Stat. 3553 (2008)), the Age Discrimination Act of 1975, 42 USC § 6101 et seq. (Age Act), Title IX of the Education Amendments of 1972 and Federal and Departmental* 

Rosa Biaggi Page 2

regulations and directives which prohibit discrimination in FNS programs and activities.

### OPPORTUNITY TO VOLUNTARILY COMPLY

In providing a summary of our areas of concern, we seek a dialogue aimed at achieving voluntary compliance. CRD would like to discuss the State agency's strategy for voluntarily remedying the areas we have addressed. Additionally, during our discussion, CRD will confirm the State agency's willingness to entering into a Voluntary Resolution Agreement (VRA) – an agreement in which the State agency expressed an interest during the onsite review.

This VRA will memorialize the State agency's commitment to implement necessary corrective actions to ensure compliance with applicable Federal Civil Rights statutes, regulations and directives. If the State agency is not interested in entering into an agreement, CRD will issue its standard Civil Rights Compliance Review Report with findings and required corrective actions.

Please contact Stephen Miliano, Regional Civil Rights Officer, Northeast Regional Office (NERO), at (617) 565-6424 or at: <a href="Stephen.Miliano@usda.gov">Stephen.Miliano@usda.gov</a> within ten (10) business days of the date on this correspondence to schedule a time to discuss a VRA or to notify CRD that the State agency will not enter into a VRA. If the State agency chooses to enter a VRA, please ensure that the individual identified as the person who has the authority to enter into an agreement with FNS is involved.

Please convey our appreciation to staff at the State and local offices for their courtesy and cooperation during the review. If you have questions, please contact Mr. Miliano at your convenience.

Sincerely,

Robert Contreras

Director

Civil Rights Division

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cc: Crystal Tolar, Chief, Compliance Branch, CRD

Kurt Messner, Regional Administrator, NERO

Marjorie Chambers, State WIC Director, Connecticut Department of Public Health

# ADDENDUM A COMPLIANCE CONCERNS

- 1. The State agency's public notification system does not consistently include the appropriate Nondiscrimination Statement (NDS) in English and Spanish and/or contains the NDS in an altered format. Citations: 7 CFR 246.8(a)(1); and FNS Instruction 113-1, Section IX.
- 2. The State agency does not provide sufficient notice of free language assistance services for individuals with LEP or free auxiliary aids and services and other reasonable modifications for individuals with disabilities. Citations: 7 CFR 15b.7; 28 CFR 35.106; the USDA Departmental Regulation: Equal Opportunity Public Notification Policy (DR 4300-003, June 2, 2015; and the U.S. Department of Agriculture, Guidance to Federal Financial Assistance Regarding the Title VI Prohibition Against National Origin Discrimination Affecting Persons with Limited English Proficiency, 79 Fed. Reg. 70771, (Nov. 28, 2014) (USDA LEP Policy Guidance).
- 3. Availability of State and subrecipient agency information in languages other than English, and Spanish is not readily available. Even when available for State agency sites, it may be inaccessible based on computer settings. It appears that access to the ability to translate webpage information is determined by web browser being used, representing a barrier to information. Citations: Title VI of the Civil Rights Act of 1964; 7 CFR 15; 7 CFR 246.8(a) and (c); FNS Instruction 113-1, Section VII; and the USDA LEP Policy Guidance.
- 4. The Connecticut Department of Public Health's use of an optional complaint form does not assure all subrecipients are implementing procedures necessary to process complaints in accordance with FNS Instruction 113-1 and the FNS State Agency Complaints Processing MOU, which FNS effectuated on September 18, 2016. Citations; 7 CFR 246.8(b); FNS Instruction 113-1, Sections XV and XVI; and the FNS State Agency Complaints Processing MOU.
- 5. The State agency's (template) complaint log does not include all components required of the FNS CRD / CT DPH MOU of 2016. Citation: 2016 FNS CRD / CT DPH MOU (Section IV B. 1.).
- 6. Civil Rights questions within WIC compliance review tools do not determine whether frontline staff provide WIC participants with LEP and/or with disabilities with an equal opportunity to participate. Citations: 7 CFR 246.8(a)(2); 7 CFR 15; 7 CFR 15b; 28 CFR 35; FNS Instruction 113-1, Section XIII and Appendix D, Part G; and the USDA LEP Policy Guidance.

7. The State agency does not provide enough notice to persons with limited English proficiency about the availability of language assistance services and how to request them. Citations: DR 4300-003 and the USDA Guidance to Federal Financial Assistance Recipients Regarding the Title VI Prohibition Against National Origin Discrimination Affecting Persons with Limited English Proficiency, 79 FED. Reg. 70771 (Nov. 28, 2014) (USDA LEP Policy Guidance).

# Addendum B: Corrective Action Plan - Terms of Resolution

1. The State agency's public notification system does not consistently include the appropriate Nondiscrimination Statement (NDS) in English and Spanish and/or contains the NDS in an altered format.

Citations: 7 CFR 246.8(a)(1); and FNS Instruction 113-1, Section IX.

**Proposed Corrective Action:** The State agency has incorporated the appropriate Nondiscrimination Statement in the documents identified

- Notice of Participant Eligibility form (English & Spanish) 1/21/2021
- WIC Verification form (English & Spanish) 1/21/2021
- Self-Declaration form (English & Spanish) 2/10/2021
- Participant Waiting List Notification 2/10/2021

Proposed Implementation Timeline: 2/28/2021

2. The State agency does not provide sufficient notice of free language assistance services for individuals with LEP or free auxiliary aids and services and other reasonable modifications for individuals with disabilities.

Citations: 7 CFR 15b.7; 28 CFR 35.106; the USDA Departmental Regulation: Equal Opportunity Public Notification Policy (DR 4300-003, June 2, 2015; and the U.S. Department of Agriculture, Guidance to Federal Financial Assistance Regarding the Title VI Prohibition Against National Origin Discrimination Affecting Persons with Limited English Proficiency, 79 Fed. Reg. 70771, (Nov. 28, 2014) (USDA LEP Policy Guidance).

**Proposed Corrective Action:** The State Agency will provide guidance to local agencies that all LEP participants and individuals with disabilities should be offered the option to receive free language assistance services including free auxiliary aid services and other reasonable modifications for individuals with disabilities.

Proposed Implementation Timeline: 6/30/2021

3. Availability of State and sub-recipient agency information in languages other than English, and Spanish is not readily available. Even when available for State agency sites, it may be inaccessible based on computer settings.

Citations: Title VI of the Civil Rights Act of 1964; 7 CFR 15; 7 CFR 246.8(a) and (c); FNS Instruction 113-1, Section VII; and the USDA LEP Policy Guidance.

**Proposed Corrective Action:** This is an individual user situation whereby the user's web browser choice is not supported (IE). State agency will update all appropriate WIC web pages to provide directives to users about compatible web browsers (Chrome and Edge).

**Proposed Implementation Timeline: 6/30/2021** 

5/17/2021

# Addendum B: Corrective Action Plan - Terms of Resolution

4. The Connecticut Department of Public Health's use of an optional complaint form does not assure all sub recipients are implementing procedures necessary to process complaints in accordance with FNS Instruction 113-1 and the FNS State Agency Complaints Processing MOU, which FNS effectuated on September 18, 2016. Citations: 7 CFR 246.8(b); FNS Instruction 113-1, Sections XV and XVI; and the FNS State Agency Complaints Processing MOU.

**Proposed Corrective Action:** The State agency will update the Discrimination form to include assurance that sub-recipients will implement the complaint process appropriately.

Proposed Implementation Timeline: 3/31/2021

5. The State agency's (template) complaint log does not include all components required of the FNS CRD / CT DPH MOU of 2016.

Citation: 2016 FNS CRD / CT DPH MOU (Section IV B. 1.).

**Proposed Corrective Action:** State Agency will update the Complaint log to include all the required components of the FNS CRD/ CT DPH 2016 MOU

Proposed Implementation Timeline: 12/31/2020

6. Civil Rights questions within WIC compliance review tools do not determine whether frontline staff provide WIC participants with LEP and/or with disabilities with an equal opportunity to participate.

Citations: 7 CFR 246.8(a)(2); 7 CFR 15; 7 CFR 15b; 28 CFR 35; FNS Instruction 113-1, Section XIII and Appendix D, Part G; and the USDA LEP Policy Guidance.

**Proposed Corrective Action:** Not required. Removed after further evaluation by the FNS Regional Civil Rights Officer. Retained on this document for accountability and consistency with Addendum A.

Proposed Implementation Timeline: Not Applicable

7. The State agency does not provide enough notice to persons with limited English proficiency about the availability of language assistance services and how to request them. Citations: DR 4300-003 and the USDA Guidance to Federal Financial Assistance

5/17/2021

### Addendum B: Corrective Action Plan - Terms of Resolution

Recipients Regarding the Title VI Prohibition Against National Origin Discrimination Affecting Persons with Limited English Proficiency, 79 FED. Reg. 70771 (Nov. 28, 2014) (USDA LEP Policy Guidance).

**Proposed Corrective Action:** The State WIC agency did purchase Language Identification (I Speak) cards, which will be mailed to the local agencies to be posted in the waiting area of each permanent site and at each service desk once in-person service resumes.

Proposed Implementation Timeline: 12/31/2020



### United States Department of Agriculture

Food and Nutrition Service

1320 Braddock Place Alexandria, VA 22314-1649 November 12, 2021

Ms. Rosa Biaggi State of Connecticut Department of Public Health 410 Capitol Avenue Hartford, CT 06134

Dear Ms. Biaggi:

Thank you for your agency's response to the Civil Rights review's Voluntary Resolution Agreement (VRA) for the State of Connecticut Department of Public Health's administration of the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). The Civil Rights desk review was conducted August 3-24, 2020; and the VRA was submitted to your agency on November 4, 2020.

We have reviewed your correspondence and documents in response to the Areas of Concern beginning with the initial response dated March 31, 2021, concluding with an input on September 17, 2021. We have determined that they adequately address all Civil Rights concerns outlined in the VRA. We appreciate your cooperation throughout this process. Please consider this review officially closed.

Should you have any future questions pertaining to Civil Rights compliance in these programs, please contact Stephen Miliano, Regional Civil Rights Officer, at (617) 565-6424 or <a href="Stephen.Miliano@USDA.gov">Stephen.Miliano@USDA.gov</a>.

Sincerely,

Roberto Contreras, Director Civil Rights Division

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cc: Crystal Tolar, Chief, Compliance Branch, CRD Lizbeth Silbermann, Regional Administrator, NERO Cheryl Fogerty Zamaloff, Director, Special Nutrition Programs Division, NERO

# STATE OF CONNECTICUT

Deidre S. Gifford, MD, MPH Acting Commissioner



Ned Lamont Governor Susan Bysiewicz Lt. Governor

### **DISCRIMINATION COMPLAINT PROCESS**

In accordance with Section 46a-68-89 of the Regulations of Connecticut State Agencies, the Department of Public Health is an equal opportunity employer/provider that ensures equal access to employment and services for all individuals, without regard to race, color, religious creed, age, sex, including sexual harassment, marital status, national origin, ancestry, intellectual disability, present or past history of a mental disability, learning disability, physical disability (including blindness) as defined by the Americans with Disabilities Act (ADA), sexual orientation, gender identity or expression, genetic information, prior conviction of a crime, pregnancy or workplace hazards to reproductive systems, domestic violence, or status as a veteran, unless there is a bona fide occupational qualification excluding persons in one of these protected classes or previous opposition.

Pursuant to subsections (4) (A) (B) and (C) of Section §46a-68 (a) of the Connecticut General Statutes the designated Equal Employment Opportunity Officer is responsible for mitigating any discriminatory conduct within the Department, investigating all complaints of discrimination made against the Department and reporting all findings to the Commissioner.

This discrimination complaint procedure for employees and those seeking employment or services with the Department, is consistent with Chapters 67 & 68 of the Connecticut General Statutes and provides for expeditious resolution to assure that legal options for filing complaints with enforcement agencies are not foreclosed.

Consistent with Section 46a-68-89 of the Affirmative Action Regulations, this complaint procedure includes:

- (1) Periodic training in counseling and complaint investigations for Department counselors;
- (2) Confidential counseling and procedures for resolution at the Department level by the agency Equal Employment Opportunity Officer;
- (3) A guarantee of non-retaliation for the exercise of rights granted pursuant through this section;
- (4) Advisement of legal rights to file complaints with the Connecticut Commission on Human Rights and Opportunities; United States Equal Employment Opportunity Commission; United States Department of Labor, Wage and Hour Division; the Department of Justice and any other compliance agencies, state, federal or local, that enforce laws concerning discrimination in employment; and
- (5) Time frames not exceeding ninety (90) days for filing, processing, and resolution of discrimination complaints.

### **Complaint Procedure:**

Any person applying for employment, currently employed, that is a constituent, provider or other party involved with the Department of Public Health who feels that he or she has been subjected to discrimination or harassment has the right to file a complaint with the DPH Affirmative Action Office.

- 1. Complaints of alleged discrimination may be made to the Affirmative Action Office/Equal Employment Opportunity Officer in any of the following ways: in writing, by e-mail, by telephone or in person. Complaints should be made as soon as possible and should be filed within thirty (30) calendar days of the occurrence or last occurrence of the alleged discrimination.
- 2. The complaining party may be interviewed regarding the alleged act(s) of discrimination, given an explanation of investigation process and given and a list of alternative avenues available through state and federal agencies.
- 3. The Equal Employment Opportunity Officer will send a "Notice of Alleged Discrimination" to the Commissioner summarizing the issues of the complaint. The Equal Employment Opportunity Officer will contact anyone named in the complaint.
- 4. During the investigation, the Equal Employment Opportunity Officer may endeavor to mitigate or resolve any complaint at the lowest level possible including informally meeting to reach a satisfactory resolution. If the complaint is not resolved, the Equal Employment Opportunity Officer will continue the investigatory process.
- 5. A fair and equitable resolution will be sought in all cases. When a satisfactory resolution cannot be reached, the employee or applicant will again be advised of other avenues of redress. All records of complaints and dispositions shall be maintained and reviewed on a regular basis by the Affirmative Action Office to detect any patterns in the nature of these complaints.

### **Protection of Rights Provision**

- 1. No person should willfully interfere with, restrain, intimidate, threaten, coerce or otherwise impair the processing of any complaints taken under this procedure, or in any way restrict or impair the employment rights of the employee, prospective employee or any witness participating in complaints taken under this procedure. Department staff made aware of such violations will immediately inform the Equal Employment Opportunity staff for investigation and appropriate disciplinary action including, but not necessarily limited to, the following: written reprimand, suspension or dismissal.
- 2. The confidentiality of all investigations and counseling will be protected by the issuance of this procedure. Confidentiality is essential to the successful

implementation of this procedure. In responding to a discrimination or harassment complaints, disclosure of information relating to the complaint and the identity of the grievant will be on a "need to know" basis, Confidentiality will be stressed at all times.

- 3. The Equal Employment Opportunity staff will inform the affected individual(s) of his/her rights. The filing of a complaint will in no way affect the treatment of any individual in any future considerations of employment.
- 4. This procedure shall not be construed as having the effect of barring any person from due process of law. If any person feels that he/she has been treated in a discriminatory manner, a complaint may be filed directly with the Connecticut Commission on Human Rights and Opportunities, the United States Equal Employment Opportunity Commission or any other state, federal, or local agency that enforces laws concerning discrimination in employment.
- 5. Any employee or witness may informally bring forth a claim of alleged discrimination or harassment without following the above prescribed internal discrimination complaint procedure. Nevertheless, the Equal Employment Opportunity staff may have an independent obligation to investigate any claim of alleged discrimination or harassment brought to their attention and to pursue a course of appropriate action.

### **Counseling or Filing Discrimination Complaint:**

- Any individual requesting counseling or wishing to discuss a complaint will work
  with the Equal Employment Opportunity Manager/Officer, Amanda AnduagaRoberson in a private area. Issues discussed during such sessions will be kept
  confidential, consistent with DPH's legal obligations.
- Any individual may file a discrimination or harassment complaint with Department of Public Health, Affirmative Action Office Amanda Anduaga-Roberson, Equal Employment Opportunity Manager/Officer 410 Capitol Avenue, 3FL Hartford, CT

Phone: 860.509.7220, VP: (860) 899-1611 or

by electronic mail: amanda.anduaga-roberson@ct.gov

If you require aid or accommodation to participate fully and fairly in this procedure or require a copy of this procedure in an alternative format, please contact the Equal Employment Opportunity Manager/ADA Compliance Coordinator (contact information above).

### **DISCRIMINATION COMPLAINT AGENCIES**

An individual has the right to file his or her complaint of discrimination with any or all of the relevant agencies listed below. The individual can also simultaneously avail himself or herself of the Department of Public Health's Internal Discrimination Complaint Procedure.

DPH 2020/2021 DISCRIM COMP PROCESS

### 1. The Connecticut Commission on Human Rights & Opportunities

<u>Capitol Regional Office</u>
450 Columbus Blvd, Suite 2
Hartford, CT 06103-1835
Tel: 860) 566-7710
TDD (860) 566-7710

West Central Region Office Rowland Government Center 55 West Main Street, Suite 210 Waterbury, CT 06702-2004 Tel: (203) 805-6530 TDD: (203) 805-6579

CHRO Central Office 450 Columbus Blvd, Suite 2 Hartford, CT 06103-1835 Tel: (860) 541-3400 TDD: (860) 541-3459 Southwest Region Office 350 Fairfield Avenue, 6th Floor Bridgeport, CT 06604 Tel: (203) 579-6246 TDD: (203) 579-6246

Eastern Region Office 100 Broadway Norwich, CT 06360 Tel: (860) 886-5703 TDD: (860) 886-5707

Complaints should be filed with the Commission on Human Rights and Opportunities within 300 days from the date of the alleged act of discrimination in the areas of employment, credit transactions, or public accommodations involving state agencies. Many CHRO discrimination complaints are also jurisdictional under federal law, which has a 300-day filing period. The CHRO can take a complaint under federal law and send it to the U.S. Equal Employment Opportunity Commission.

#### 2. The Equal Employment Opportunities Commission

John F. Kennedy Federal Office Building 475 Government Center Boston, MA 02203 Tel: (800) 669-4000

Complaints should be filed with the Equal Employment Opportunities Commission no later than three hundred (300) days after the alleged act of employment discrimination occurred.

#### 3. Connecticut Commission on Women, Children and Seniors

18-20 Trinity Street Hartford, CT 06106 Tel: (860) 240-1475

### 4. Regulation of Wages Division, Connecticut Labor Department

200 Folly Brook Boulevard Wethersfield, CT 06109 Tel: (860) 566-3450

### 5. Wage and Hour and Public Contracts Division

United States Labor Department 135 High Street Hartford, CT 06103 Tel: (860) 240-4277

DPH 2020/2021 DISCRIM COMP PROCESS